

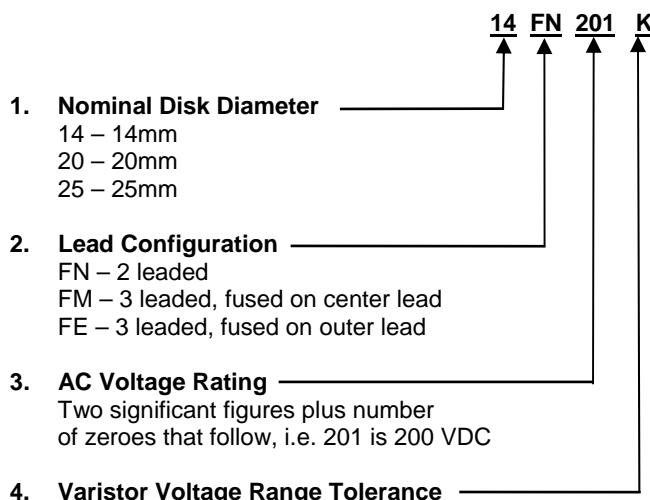
## INTRODUCTION

The Thermally Protected Series is designed for safe disconnection of the varistor from the circuit due to abnormal operating conditions. These components consist of 2 or 3 leaded wire leads, a thermal disconnect, and have nominal diameters of 14mm, 20mm, and 25mm. Voltage ranges from 60VAC-750VAC with peak surge currents of 4.5kA/6kA (14mm), 10kA (20mm), and 18kA (25mm).

## STYLE DESIGNATION

The Maida Style Number is the typical means to identify our components when ordered. The style number identifies several parameters that are important for the characteristics of the device. An alternative ordering method, if known, is by our Item Number.

The following example is the standard part numbering system when ordering our Thermally Protected Series components by the Maida Style Number:



## STANDARD MARKING

Minimum marking shall consist of an abbreviated style designation and, when space is available, the manufacturer's initials or company logo.

Example:

MDC

FV

14N201

Where:

MDC - Company Initials

FV - Fail safe Varistor

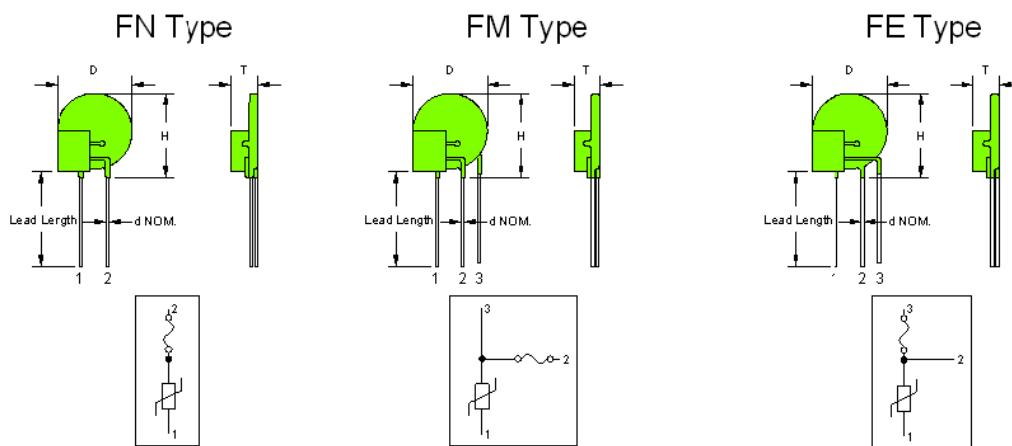
14 - Diameter

N - Series Designation (FN, FM, FE)

201 - Nominal DC Voltage Rating (200VDC)

A manufacturing date code and/or special markings are available upon request.

Other safety agency designations are included where applicable.



# THERMALLY PROTECTED SERIES

## SPECIFICATIONS

### 50VAC thru 140VAC VARISTORS

| Maida<br>Style<br>Number | Recognitions<br>To<br>Safety<br>Agency<br>Standards | Nominal<br>Size | Minimum<br>Marking | Maximum Ratings    |                        |                     |   |                     |     |                                 |       | Electrical Characteristics                    |     |                 |      |                    |                  |  |  |
|--------------------------|---|-----------------|--------------------|--------------------|------------------------|---------------------|---|---------------------|-----|---------------------------------|-------|---|-----|-----------------|------|--------------------|------------------|--|--|
|                          |   |                 |                    | Continuous         |                        | Transient           |   |                     |     | Varistor<br>Voltage<br>@1 mA DC |       | Max<br>Clamping<br>Voltage<br>(@Test Current) |     | Typical<br>Cap. |      |                    |                  |  |  |
|                          |   |                 |                    | Applied<br>Voltage | Energy                 |                     | Peak<br>Current<br>8 x 20 $\mu$ sec<br># Pulses |                     |     |                                 |       | 1   | 2   | Vmin            | Vmax | (8 x 20 $\mu$ sec) |                  |  |  |
|                          |   |                 |                    |                    | 10 x 1000<br>$\mu$ sec | 8 x 20<br>$\mu$ sec | 10 x 1000<br>$\mu$ sec                          | 8 x 20<br>$\mu$ sec |     |                                 |       |   |     |                 |      |                    |                  |  |  |
|                          |   |                 |                    | (AC)               | (DC)                   | (J)                 | (J)   | (A)                 | (A) | (V)                             | (V)   | (V)   | (V) | (A)             | (pF) |                    | 1 V rms<br>@1kHz |  |  |
| 14FE820K                 | X   |                 |                    | 14                 | MDC-FV-14E820K         | 50                  | 65  | 27                  | 27  | 4500                            | 2500  | 74  | 90  | 135             | 50   | 2400               |                  |  |  |
| 14FM820K                 | X   |                 |                    | 14                 | MDC-FV-14M820K         | 50                  | 65  | 27                  | 27  | 4500                            | 2500  | 74  | 90  | 135             | 50   | 2400               |                  |  |  |
| 14FN820K                 | X   |                 |                    | 14                 | MDC-FV-14N820K         | 50                  | 65  | 27                  | 27  | 4500                            | 2500  | 74  | 90  | 135             | 50   | 2400               |                  |  |  |
| 20FE820K                 | X   |                 |                    | 20                 | MDC-FV-20E820K         | 50                  | 65  | 56                  | 56  | 10000                           | 6500  | 74  | 90  | 135             | 100  | 4900               |                  |  |  |
| 20FM820K                 | X   |                 |                    | 20                 | MDC-FV-20M820K         | 50                  | 65  | 56                  | 56  | 10000                           | 6500  | 74  | 90  | 135             | 100  | 4900               |                  |  |  |
| 20FN820K                 | X   |                 |                    | 20                 | MDC-FV-20N820K         | 50                  | 65  | 56                  | 56  | 10000                           | 6500  | 74  | 90  | 135             | 100  | 4900               |                  |  |  |
| 14FE101K                 | X   |                 |                    | 14                 | MDC-FV-14E101K         | 60                  | 85  | 33                  | 33  | 4500                            | 2500  | 90  | 110 | 165             | 50   | 2000               |                  |  |  |
| 14FM101K                 | X   |                 |                    | 14                 | MDC-FV-14M101K         | 60                  | 85  | 33                  | 33  | 4500                            | 2500  | 90  | 110 | 165             | 50   | 2000               |                  |  |  |
| 14FN101K                 | X   |                 |                    | 14                 | MDC-FV-14N101K         | 60                  | 85  | 33                  | 33  | 4500                            | 2500  | 90  | 110 | 165             | 50   | 2000               |                  |  |  |
| 20FE101K                 | X   |                 |                    | 20                 | MDC-FV-20E101K         | 60                  | 85  | 70                  | 70  | 10000                           | 6500  | 90  | 110 | 165             | 100  | 4000               |                  |  |  |
| 20FM101K                 | X   |                 |                    | 20                 | MDC-FV-20M101K         | 60                  | 85  | 70                  | 70  | 10000                           | 6500  | 90  | 110 | 165             | 100  | 4000               |                  |  |  |
| 20FN101K                 | X   |                 |                    | 20                 | MDC-FV-20N101K         | 60                  | 85  | 70                  | 70  | 10000                           | 6500  | 90  | 110 | 165             | 100  | 4000               |                  |  |  |
| 14FE121K                 | X   |                 |                    | 14                 | MDC-FV-14E121K         | 75                  | 100   | 40                  | 40  | 4500                            | 2500  | 108   | 132 | 200             | 50   | 1700               |                  |  |  |
| 14FM121K                 | X   |                 |                    | 14                 | MDC-FV-14M121K         | 75                  | 100   | 40                  | 40  | 4500                            | 2500  | 108   | 132 | 200             | 50   | 1700               |                  |  |  |
| 14FN121K                 | X   |                 |                    | 14                 | MDC-FV-14N121K         | 75                  | 100   | 40                  | 40  | 4500                            | 2500  | 108   | 132 | 200             | 50   | 1700               |                  |  |  |
| 20FE121K                 | X   |                 |                    | 20                 | MDC-FV-20E121K         | 75                  | 100   | 85                  | 85  | 10000                           | 6500  | 108   | 132 | 200             | 100  | 3300               |                  |  |  |
| 20FM121K                 | X   |                 |                    | 20                 | MDC-FV-20M121K         | 75                  | 100   | 85                  | 85  | 10000                           | 6500  | 108   | 132 | 200             | 100  | 3300               |                  |  |  |
| 20FN121K                 | X   |                 |                    | 20                 | MDC-FV-20N121K         | 75                  | 100   | 85                  | 85  | 10000                           | 6500  | 108   | 132 | 200             | 100  | 3300               |                  |  |  |
| 14FE151K                 | X   |                 |                    | 14                 | MDC-FV-14E151K         | 95                  | 125   | 50                  | 50  | 6000                            | 4500  | 135   | 165 | 250             | 50   | 1300               |                  |  |  |
| 14FM151K                 | X   |                 |                    | 14                 | MDC-FV-14M151K         | 95                  | 125   | 50                  | 50  | 6000                            | 4500  | 135   | 165 | 250             | 50   | 1300               |                  |  |  |
| 14FN151K                 | X   |                 |                    | 14                 | MDC-FV-14N151K         | 95                  | 125   | 50                  | 50  | 6000                            | 4500  | 135   | 165 | 250             | 50   | 1300               |                  |  |  |
| 20FE151K                 | X   |                 |                    | 20                 | MDC-FV-20E151K         | 95                  | 125   | 100                 | 100 | 10000                           | 6000  | 135   | 165 | 250             | 100  | 2700               |                  |  |  |
| 20FM151K                 | X   |                 |                    | 20                 | MDC-FV-20M151K         | 95                  | 125   | 100                 | 100 | 10000                           | 6000  | 135   | 165 | 250             | 100  | 2700               |                  |  |  |
| 20FN151K                 | X   |                 |                    | 20                 | MDC-FV-20N151K         | 95                  | 125   | 100                 | 100 | 10000                           | 6000  | 135   | 165 | 250             | 100  | 2700               |                  |  |  |
| 25FE151K                 | X   |                 |                    | 25                 | MDC-FV-25E151K         | 95                  | 125   | 160                 | 160 | 15000                           | 12000 | 135   | 165 | 250             | 150  | 4300               |                  |  |  |
| 25FM151K                 | X   |                 |                    | 25                 | MDC-FV-25M151K         | 95                  | 125   | 160                 | 160 | 15000                           | 12000 | 135   | 165 | 250             | 150  | 4300               |                  |  |  |
| 25FN151K                 | X   |                 |                    | 25                 | MDC-FV-25N151K         | 95                  | 125   | 160                 | 160 | 15000                           | 12000 | 135   | 165 | 250             | 150  | 4300               |                  |  |  |
| 14FE181K                 | X   |                 |                    | 14                 | MDC-FV-14E181K         | 115                 | 150   | 58                  | 58  | 6000                            | 4500  | 162   | 198 | 300             | 50   | 1100               |                  |  |  |
| 14FM181K                 | X   |                 |                    | 14                 | MDC-FV-14M181K         | 115                 | 150   | 58                  | 58  | 6000                            | 4500  | 162   | 198 | 300             | 50   | 1100               |                  |  |  |
| 14FN181K                 | X   |                 |                    | 14                 | MDC-FV-14N181K         | 115                 | 150   | 58                  | 58  | 6000                            | 4500  | 162   | 198 | 300             | 50   | 1100               |                  |  |  |
| 20FE181K                 | X   |                 |                    | 20                 | MDC-FV-20E181K         | 115                 | 150   | 110                 | 110 | 10000                           | 6000  | 162   | 198 | 300             | 100  | 2200               |                  |  |  |
| 20FM181K                 | X   |                 |                    | 20                 | MDC-FV-20M181K         | 115                 | 150   | 110                 | 110 | 10000                           | 6000  | 162   | 198 | 300             | 100  | 2200               |                  |  |  |
| 20FN181K                 | X   |                 |                    | 20                 | MDC-FV-20N181K         | 115                 | 150   | 110                 | 110 | 10000                           | 6000  | 162   | 198 | 300             | 100  | 2200               |                  |  |  |
| 25FE181K                 | X   |                 |                    | 25                 | MDC-FV-25E181K         | 115                 | 150   | 175                 | 175 | 15000                           | 12000 | 162   | 198 | 300             | 150  | 3500               |                  |  |  |
| 25FM181K                 | X   |                 |                    | 25                 | MDC-FV-25M181K         | 115                 | 150   | 175                 | 175 | 15000                           | 12000 | 162   | 198 | 300             | 150  | 3500               |                  |  |  |
| 25FN181K                 | X   |                 |                    | 25                 | MDC-FV-25N181K         | 115                 | 150   | 175                 | 175 | 15000                           | 12000 | 162   | 198 | 300             | 150  | 3500               |                  |  |  |
| 14FE201K                 | X   |                 |                    | 14                 | MDC-FV-14E201K         | 130                 | 170   | 70                  | 70  | 6000                            | 4500  | 185   | 225 | 340             | 50   | 1000               |                  |  |  |
| 14FM201K                 | X   |                 |                    | 14                 | MDC-FV-14M201K         | 130                 | 170   | 70                  | 70  | 6000                            | 4500  | 185   | 225 | 340             | 50   | 1000               |                  |  |  |
| 14FN201K                 | X   |                 |                    | 14                 | MDC-FV-14N201K         | 130                 | 170   | 70                  | 70  | 6000                            | 4500  | 185   | 225 | 340             | 50   | 1000               |                  |  |  |
| 20FE201K                 | X   |                 |                    | 20                 | MDC-FV-20E201K         | 130                 | 170   | 140                 | 140 | 10000                           | 6000  | 185   | 225 | 340             | 100  | 2000               |                  |  |  |
| 20FM201K                 | X   |                 |                    | 20                 | MDC-FV-20M201K         | 130                 | 170   | 140                 | 140 | 10000                           | 6000  | 185   | 225 | 340             | 100  | 2000               |                  |  |  |
| 20FN201K                 | X   |                 |                    | 20                 | MDC-FV-20N201K         | 130                 | 170   | 140                 | 140 | 10000                           | 6000  | 185   | 225 | 340             | 100  | 2000               |                  |  |  |
| 25FE201K                 | X   |                 |                    | 25                 | MDC-FV-25E201K         | 130                 | 170   | 210                 | 210 | 15000                           | 12000 | 185   | 225 | 340             | 150  | 3200               |                  |  |  |
| 25FM201K                 | X   |                 |                    | 25                 | MDC-FV-25M201K         | 130                 | 170   | 210                 | 210 | 15000                           | 12000 | 185   | 225 | 340             | 150  | 3200               |                  |  |  |
| 25FN201K                 | X   |                 |                    | 25                 | MDC-FV-25N201K         | 130                 | 170   | 210                 | 210 | 15000                           | 12000 | 185   | 225 | 340             | 150  | 3200               |                  |  |  |
| 14FE221K                 | X   |                 |                    | 14                 | MDC-FV-14E221K         | 140                 | 180   | 78                  | 78  | 6000                            | 4500  | 198   | 242 | 360             | 50   | 900                |                  |  |  |
| 14FM221K                 | X   |                 |                    | 14                 | MDC-FV-14M221K         | 140                 | 180   | 78                  | 78  | 6000                            | 4500  | 198   | 242 | 360             | 50   | 900                |                  |  |  |
| 14FN221K                 | X   |                 |                    | 14                 | MDC-FV-14N221K         | 140                 | 180   | 78                  | 78  | 6000                            | 4500  | 198   | 242 | 360             | 50   | 900                |                  |  |  |
| 20FE221K                 | X   |                 |                    | 20                 | MDC-FV-20E221K         | 140                 | 180   | 155                 | 155 | 10000                           | 6000  | 198   | 242 | 360             | 100  | 1800               |                  |  |  |
| 20FM221K                 | X   |                 |                    | 20                 | MDC-FV-20M221K         | 140                 | 180   | 155                 | 155 | 10000                           | 6000  | 198   | 242 | 360             | 100  | 1800               |                  |  |  |
| 20FN221K                 | X   |                 |                    | 20                 | MDC-FV-20N221K         | 140                 | 180   | 155                 | 155 | 10000                           | 6000  | 198   | 242 | 360             | 100  | 1800               |                  |  |  |
| 25FE221K                 | X   |                 |                    | 25                 | MDC-FV-25E221K         | 140                 | 180   | 230                 | 230 | 15000                           | 12000 | 198   | 242 | 360             | 150  | 2900               |                  |  |  |
| 25FM221K                 | X   |                 |                    | 25                 | MDC-FV-25M221K         | 140                 | 180   | 230                 | 230 | 15000                           | 12000 | 198   | 242 | 360             | 150  | 2900               |                  |  |  |
| 25FN221K                 | X   |                 |                    | 25                 | MDC-FV-25N221K         | 140                 | 180   | 230                 | 230 | 15000                           | 12000 | 198   | 242 | 360             | 150  | 2900               |                  |  |  |

#### NOTES:

Appendix A lists the single-pulse peak current and energy ratings on file with the Safety Agencies.

Maximum transient rating specified in this table are valid. They may differ from those shown in Appendix A.

A = UL1449

D = VDE

B = cUL

E =

C = CSA

F =

## 50VAC thru 140VAC VARISTORS

| Maida<br>Style<br>Number | MAX.<br>Diameter<br>(D) | MAX.<br>Thickness<br>(T) | MAX.<br>Height<br>(H) | Typical<br>X<br>Dimension | Typical<br>X<br>Tolerance | Typical<br>Y<br>Dimension | Typical<br>Y<br>Tolerance | Typical<br>Z<br>Dimension | Typical<br>Z<br>Tolerance | Typical<br>Wire<br>Diameter<br>(d)<br>(in) |
|--------------------------|-------------------------|--------------------------|-----------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|--|
| 14FE820K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 14FM820K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 14FN820K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 20FE820K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 20FM820K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 20FN820K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 14FE101K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 14FM101K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 14FN101K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 20FE101K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 20FM101K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 20FN101K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 14FE121K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 14FM121K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 14FN121K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 20FE121K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.394                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 20FM121K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.394                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 20FN121K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.394                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 14FE151K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 14FM151K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 14FN151K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 20FE151K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 20FM151K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 20FN151K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 25FE151K                 | 1.142                   | 0.465                    | 1.260                 | 0.492                     | 0.039                     | 0.150                     | 0.030                     | 0.492                     | 0.039                     | 0.040                                      |
| 25FM151K                 | 1.142                   | 0.465                    | 1.260                 | 0.492                     | 0.039                     | 0.150                     | 0.030                     | 0.492                     | 0.039                     | 0.040                                      |
| 25FN151K                 | 1.142                   | 0.465                    | 1.260                 | 0.492                     | 0.039                     | 0.150                     | 0.030                     | 0.492                     | 0.039                     | 0.040                                      |
| 14FE181K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 14FM181K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 14FN181K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 20FE181K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 20FM181K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 20FN181K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 25FE181K                 | 1.142                   | 0.465                    | 1.260                 | 0.492                     | 0.039                     | 0.150                     | 0.030                     | 0.492                     | 0.039                     | 0.040                                      |
| 25FM181K                 | 1.142                   | 0.465                    | 1.260                 | 0.492                     | 0.039                     | 0.150                     | 0.030                     | 0.492                     | 0.039                     | 0.040                                      |
| 25FN181K                 | 1.142                   | 0.465                    | 1.260                 | 0.492                     | 0.039                     | 0.150                     | 0.030                     | 0.492                     | 0.039                     | 0.040                                      |
| 14FE201K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 14FM201K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 14FN201K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 20FE201K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 20FM201K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 20FN201K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 25FE201K                 | 1.142                   | 0.465                    | 1.260                 | 0.492                     | 0.039                     | 0.150                     | 0.030                     | 0.492                     | 0.039                     | 0.040                                      |
| 25FM201K                 | 1.142                   | 0.465                    | 1.260                 | 0.492                     | 0.039                     | 0.150                     | 0.030                     | 0.492                     | 0.039                     | 0.040                                      |
| 25FN201K                 | 1.142                   | 0.465                    | 1.260                 | 0.492                     | 0.039                     | 0.150                     | 0.030                     | 0.492                     | 0.039                     | 0.040                                      |
| 14FE221K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 14FM221K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 14FN221K                 | 0.748                   | 0.386                    | 0.827                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 20FE221K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 20FM221K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 20FN221K                 | 0.945                   | 0.386                    | 1.024                 | 0.295                     | 0.039                     | 0.150                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 25FE221K                 | 1.142                   | 0.465                    | 1.260                 | 0.492                     | 0.039                     | 0.150                     | 0.030                     | 0.492                     | 0.039                     | 0.040                                      |
| 25FM221K                 | 1.142                   | 0.465                    | 1.260                 | 0.492                     | 0.039                     | 0.150                     | 0.030                     | 0.492                     | 0.039                     | 0.040                                      |
| 25FN221K                 | 1.142                   | 0.465                    | 1.260                 | 0.492                     | 0.039                     | 0.150                     | 0.030                     | 0.492                     | 0.039                     | 0.040                                      |

NOTE: Alternate dimensional specifications, including lead styles, for any part listed may be available upon request. Please contact us for any inquiries.

# THERMALLY PROTECTED SERIES

## SPECIFICATIONS

### 150VAC thru 250VAC VARISTORS

| Maida<br>Style<br>Number | Recognitions<br>To<br>Safety<br>Agency<br>Standards | Nominal<br>Size | Minimum<br>Marking | Maximum Ratings    |   |           |   |                        |   |                  |                | Electrical Characteristics                      |     |                                 |     |   |       |      |                  |              |              |
|--------------------------|---|-----------------|--------------------|--------------------|---|-----------|---|------------------------|---|------------------|----------------|---|-----|---------------------------------|-----|---|-------|------|------------------|--------------|--------------|
|                          |   |                 |                    | Continuous         |   | Transient |   |                        |   |                  |                | Peak<br>Current<br>8 x 20 $\mu$ sec<br># Pulses |     | Varistor<br>Voltage<br>@1 mA DC |     | Max<br>Clamping<br>Voltage<br>(@Test Current) |       |      |                  |              |              |
|                          |   |                 |                    | Applied<br>Voltage |   | Energy    |   | 10 x 1000<br>$\mu$ sec |   | 8 x 20 $\mu$ sec |                |   |     |                                 |     |   |       |      |                  |              |              |
|                          |   |                 |                    | (AC)               |   | (DC)      |   | (J)                    |   | (J)              |                | (A)   | (A) | (V)                             | (V) | (V)   | (A)   | (pF) |                  |              |              |
|                          |   |                 |                    | A                  | B | C         | D | E                      | F | (mm)             |                |   |     |                                 |     |   |       |      | 1 V rms<br>@1kHz |              |              |
| 14FE241K                 | X   |                 |                    |                    |   |           |   |                        |   | 14               | MDC-FV-14E241K | 150   | 200 | 85                              | 85  | 6000  | 4500  | 216  | 264              | 395 50 830   |              |
| 14FM241K                 | X   |                 |                    |                    |   |           |   |                        |   | 14               | MDC-FV-14M241K | 150   | 200 | 85                              | 85  | 6000  | 4500  | 216  | 264              | 395 50 830   |              |
| 14FN241K                 | X   |                 |                    |                    |   |           |   |                        |   | 14               | MDC-FV-14N241K | 150   | 200 | 85                              | 85  | 6000  | 4500  | 216  | 264              | 395 50 830   |              |
| 20FE241K                 | X   |                 |                    |                    |   |           |   |                        |   | 20               | MDC-FV-20E241K | 150   | 200 | 170                             | 170 | 10000   | 6000  | 216  | 264              | 395 100 1650 |              |
| 20FM241K                 | X   |                 |                    |                    |   |           |   |                        |   | 20               | MDC-FV-20M241K | 150   | 200 | 170                             | 170 | 10000   | 6000  | 216  | 264              | 395 100 1650 |              |
| 20FN241K                 | X   |                 |                    |                    |   |           |   |                        |   | 20               | MDC-FV-20N241K | 150   | 200 | 170                             | 170 | 10000   | 6000  | 216  | 264              | 395 100 1650 |              |
| 25FE241K                 | X   |                 |                    |                    |   |           |   |                        |   | 25               | MDC-FV-25E241K | 150   | 200 | 255                             | 255 | 15000   | 12000 | 216  | 264              | 395 150 2650 |              |
| 25FM241K                 | X   |                 |                    |                    |   |           |   |                        |   | 25               | MDC-FV-25M241K | 150   | 200 | 255                             | 255 | 15000   | 12000 | 216  | 264              | 395 150 2650 |              |
| 25FN241K                 | X   |                 |                    |                    |   |           |   |                        |   | 25               | MDC-FV-25N241K | 150   | 200 | 255                             | 255 | 15000   | 12000 | 216  | 264              | 395 150 2650 |              |
| 14FE271K                 | X   |                 |                    |                    |   |           |   |                        |   | 14               | MDC-FV-14E271K | 175   | 225 | 100                             | 100 | 6000  | 4500  | 243  | 297              | 455 50 740   |              |
| 14FM271K                 | X   |                 |                    |                    |   |           |   |                        |   | 14               | MDC-FV-14M271K | 175   | 225 | 100                             | 100 | 6000  | 4500  | 243  | 297              | 455 50 740   |              |
| 14FN271K                 | X   |                 |                    |                    |   |           |   |                        |   | 14               | MDC-FV-14N271K | 175   | 225 | 100                             | 100 | 6000  | 4500  | 243  | 297              | 455 50 740   |              |
| 20FE271K                 | X   |                 |                    |                    |   |           |   |                        |   | 20               | MDC-FV-20E271K | 175   | 225 | 190                             | 190 | 10000   | 6000  | 243  | 297              | 455 100 1500 |              |
| 20FM271K                 | X   |                 |                    |                    |   |           |   |                        |   | 20               | MDC-FV-20M271K | 175   | 225 | 190                             | 190 | 10000   | 6000  | 243  | 297              | 455 100 1500 |              |
| 20FN271K                 | X   |                 |                    |                    |   |           |   |                        |   | 20               | MDC-FV-20N271K | 175   | 225 | 190                             | 190 | 10000   | 6000  | 243  | 297              | 455 100 1500 |              |
| 25FE271K                 | X   |                 |                    |                    |   |           |   |                        |   | 25               | MDC-FV-25E271K | 175   | 225 | 285                             | 285 | 15000   | 12000 | 243  | 297              | 455 150 2400 |              |
| 25FM271K                 | X   |                 |                    |                    |   |           |   |                        |   | 25               | MDC-FV-25M271K | 175   | 225 | 285                             | 285 | 15000   | 12000 | 243  | 297              | 455 150 2400 |              |
| 25FN271K                 | X   |                 |                    |                    |   |           |   |                        |   | 25               | MDC-FV-25N271K | 175   | 225 | 285                             | 285 | 15000   | 12000 | 243  | 297              | 455 150 2400 |              |
| 14FE301K                 | X   |                 |                    |                    |   |           |   |                        |   | 14               | MDC-FV-14E301K | 190   | 250 | 107                             | 107 | 6000  | 4500  | 270  | 330              | 500 50 670   |              |
| 14FM301K                 | X   |                 |                    |                    |   |           |   |                        |   | 14               | MDC-FV-14M301K | 190   | 250 | 107                             | 107 | 6000  | 4500  | 270  | 330              | 500 50 670   |              |
| 14FN301K                 | X   |                 |                    |                    |   |           |   |                        |   | 14               | MDC-FV-14N301K | 190   | 250 | 107                             | 107 | 6000  | 4500  | 270  | 330              | 500 50 670   |              |
| 20FE301K                 | X   |                 |                    |                    |   |           |   |                        |   | 20               | MDC-FV-20E301K | 190   | 250 | 205                             | 205 | 205   | 10000 | 6000 | 270              | 330          | 500 100 1300 |
| 20FM301K                 | X   |                 |                    |                    |   |           |   |                        |   | 20               | MDC-FV-20M301K | 190   | 250 | 205                             | 205 | 205   | 10000 | 6000 | 270              | 330          | 500 100 1300 |
| 20FN301K                 | X   |                 |                    |                    |   |           |   |                        |   | 20               | MDC-FV-20N301K | 190   | 250 | 205                             | 205 | 205   | 10000 | 6000 | 270              | 330          | 500 100 1300 |
| 25FE301K                 | X   |                 |                    |                    |   |           |   |                        |   | 25               | MDC-FV-25E301K | 190   | 250 | 310                             | 310 | 15000   | 12000 | 270  | 330              | 500 150 2100 |              |
| 25FM301K                 | X   |                 |                    |                    |   |           |   |                        |   | 25               | MDC-FV-25M301K | 190   | 250 | 310                             | 310 | 15000   | 12000 | 270  | 330              | 500 150 2100 |              |
| 25FN301K                 | X   |                 |                    |                    |   |           |   |                        |   | 25               | MDC-FV-25N301K | 190   | 250 | 310                             | 310 | 15000   | 12000 | 270  | 330              | 500 150 2100 |              |
| 14FE331K                 | X   |                 |                    |                    |   |           |   |                        |   | 14               | MDC-FV-14E331K | 210   | 275 | 115                             | 115 | 6000  | 4500  | 297  | 363              | 550 50 610   |              |
| 14FM331K                 | X   |                 |                    |                    |   |           |   |                        |   | 14               | MDC-FV-14M331K | 210   | 275 | 115                             | 115 | 6000  | 4500  | 297  | 363              | 550 50 610   |              |
| 14FN331K                 | X   |                 |                    |                    |   |           |   |                        |   | 14               | MDC-FV-14N331K | 210   | 275 | 115                             | 115 | 6000  | 4500  | 297  | 363              | 550 50 610   |              |
| 20FE331K                 | X   |                 |                    |                    |   |           |   |                        |   | 20               | MDC-FV-20E331K | 210   | 275 | 215                             | 215 | 10000   | 6000  | 297  | 363              | 550 100 1200 |              |
| 20FM331K                 | X   |                 |                    |                    |   |           |   |                        |   | 20               | MDC-FV-20M331K | 210   | 275 | 215                             | 215 | 10000   | 6000  | 297  | 363              | 550 100 1200 |              |
| 20FN331K                 | X   |                 |                    |                    |   |           |   |                        |   | 20               | MDC-FV-20N331K | 210   | 275 | 215                             | 215 | 10000   | 6000  | 297  | 363              | 550 100 1200 |              |
| 25FE331K                 | X   |                 |                    |                    |   |           |   |                        |   | 25               | MDC-FV-25E331K | 210   | 275 | 325                             | 325 | 15000   | 12000 | 297  | 363              | 550 150 1900 |              |
| 25FM331K                 | X   |                 |                    |                    |   |           |   |                        |   | 25               | MDC-FV-25M331K | 210   | 275 | 325                             | 325 | 15000   | 12000 | 297  | 363              | 550 150 1900 |              |
| 25FN331K                 | X   |                 |                    |                    |   |           |   |                        |   | 25               | MDC-FV-25N331K | 210   | 275 | 325                             | 325 | 15000   | 12000 | 297  | 363              | 550 150 1900 |              |
| 14FE361K                 | X   |                 |                    |                    |   |           |   |                        |   | 14               | MDC-FV-14E361K | 230   | 300 | 125                             | 125 | 6000  | 4500  | 324  | 396              | 595 50 560   |              |
| 14FM361K                 | X   |                 |                    |                    |   |           |   |                        |   | 14               | MDC-FV-14M361K | 230   | 300 | 125                             | 125 | 6000  | 4500  | 324  | 396              | 595 50 560   |              |
| 14FN361K                 | X   |                 |                    |                    |   |           |   |                        |   | 14               | MDC-FV-14N361K | 230   | 300 | 125                             | 125 | 6000  | 4500  | 324  | 396              | 595 50 560   |              |
| 20FE361K                 | X   |                 |                    |                    |   |           |   |                        |   | 20               | MDC-FV-20E361K | 230   | 300 | 225                             | 225 | 10000   | 6000  | 324  | 396              | 595 100 1100 |              |
| 20FM361K                 | X   |                 |                    |                    |   |           |   |                        |   | 20               | MDC-FV-20M361K | 230   | 300 | 225                             | 225 | 10000   | 6000  | 324  | 396              | 595 100 1100 |              |
| 20FN361K                 | X   |                 |                    |                    |   |           |   |                        |   | 20               | MDC-FV-20N361K | 230   | 300 | 225                             | 225 | 10000   | 6000  | 324  | 396              | 595 100 1100 |              |
| 25FE361K                 | X   |                 |                    |                    |   |           |   |                        |   | 25               | MDC-FV-25E361K | 230   | 300 | 340                             | 340 | 15000   | 12000 | 324  | 396              | 595 150 1750 |              |
| 25FM361K                 | X   |                 |                    |                    |   |           |   |                        |   | 25               | MDC-FV-25M361K | 230   | 300 | 340                             | 340 | 15000   | 12000 | 324  | 396              | 595 150 1750 |              |
| 25FN361K                 | X   |                 |                    |                    |   |           |   |                        |   | 25               | MDC-FV-25N361K | 230   | 300 | 340                             | 340 | 15000   | 12000 | 324  | 396              | 595 150 1750 |              |
| 14FE391K                 | X   |                 |                    |                    |   |           |   |                        |   | 14               | MDC-FV-14E391K | 250   | 320 | 140                             | 140 | 6000  | 4500  | 351  | 429              | 650 50 510   |              |
| 14FM391K                 | X   |                 |                    |                    |   |           |   |                        |   | 14               | MDC-FV-14M391K | 250   | 320 | 140                             | 140 | 6000  | 4500  | 351  | 429              | 650 50 510   |              |
| 14FN391K                 | X   |                 |                    |                    |   |           |   |                        |   | 14               | MDC-FV-14N391K | 250   | 320 | 140                             | 140 | 6000  | 4500  | 351  | 429              | 650 50 510   |              |
| 20FE391K                 | X   |                 |                    |                    |   |           |   |                        |   | 20               | MDC-FV-20E391K | 250   | 320 | 240                             | 240 | 10000   | 6000  | 351  | 429              | 650 100 1000 |              |
| 20FM391K                 | X   |                 |                    |                    |   |           |   |                        |   | 20               | MDC-FV-20M391K | 250   | 320 | 240                             | 240 | 10000   | 6000  | 351  | 429              | 650 100 1000 |              |
| 20FN391K                 | X   |                 |                    |                    |   |           |   |                        |   | 20               | MDC-FV-20N391K | 250   | 320 | 240                             | 240 | 10000   | 6000  | 351  | 429              | 650 100 1000 |              |
| 25FE391K                 | X   |                 |                    |                    |   |           |   |                        |   | 25               | MDC-FV-25E391K | 250   | 320 | 360                             | 360 | 15000   | 12000 | 351  | 429              | 650 150 1600 |              |
| 25FM391K                 | X   |                 |                    |                    |   |           |   |                        |   | 25               | MDC-FV-25M391K | 250   | 320 | 360                             | 360 | 15000   | 12000 | 351  | 429              | 650 150 1600 |              |
| 25FN391K                 | X   |                 |                    |                    |   |           |   |                        |   | 25               | MDC-FV-25N391K | 250   | 320 | 360                             | 360 | 15000   | 12000 | 351  | 429              | 650 150 1600 |              |

NOTES:

Appendix A lists the single-pulse peak current and energy ratings on file with the Safety Agencies.

Maximum transient rating specified in this table are valid. They may differ from those shown in Appendix A.

A = UL1449

D = VDE

B = cUL

E =

C = CSA

F =

## 150VAC thru 250VAC VARISTORS

| Maida Style Number | MAX. Diameter (D)<br>(in) | MAX. Thickness (T)<br>(in) | MAX. Height (H)<br>(in) | Typical X Dimension<br>(in) | Typical X Tolerance<br>(in) | Typical Y Dimension<br>(in) | Typical Y Tolerance<br>(in) | Typical Z Dimension<br>(in) | Typical Z Tolerance<br>(in) | Typical Wire Diameter (d)<br>(in) |
|--------------------|---------------------------|----------------------------|-------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------------|
| 14FE241K           | 0.748                     | 0.386                      | 0.827                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FM241K           | 0.748                     | 0.386                      | 0.827                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FN241K           | 0.748                     | 0.386                      | 0.827                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 20FE241K           | 0.945                     | 0.386                      | 1.024                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FM241K           | 0.945                     | 0.386                      | 1.024                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FN241K           | 0.945                     | 0.386                      | 1.024                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 25FE241K           | 1.142                     | 0.465                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FM241K           | 1.142                     | 0.465                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FN241K           | 1.142                     | 0.465                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 14FE271K           | 0.748                     | 0.386                      | 0.827                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FM271K           | 0.748                     | 0.386                      | 0.827                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FN271K           | 0.748                     | 0.386                      | 0.827                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 20FE271K           | 0.945                     | 0.386                      | 1.024                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FM271K           | 0.945                     | 0.386                      | 1.024                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FN271K           | 0.945                     | 0.386                      | 1.024                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 25FE271K           | 1.142                     | 0.465                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FM271K           | 1.142                     | 0.465                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FN271K           | 1.142                     | 0.465                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 14FE301K           | 0.748                     | 0.386                      | 0.827                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FM301K           | 0.748                     | 0.386                      | 0.827                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FN301K           | 0.748                     | 0.386                      | 0.827                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 20FE301K           | 0.945                     | 0.386                      | 1.024                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FM301K           | 0.945                     | 0.386                      | 1.024                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FN301K           | 0.945                     | 0.386                      | 1.024                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 25FE301K           | 1.142                     | 0.465                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FM301K           | 1.142                     | 0.465                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FN301K           | 1.142                     | 0.465                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 14FE331K           | 0.748                     | 0.386                      | 0.827                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FM331K           | 0.748                     | 0.386                      | 0.827                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FN331K           | 0.748                     | 0.386                      | 0.827                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 20FE331K           | 0.945                     | 0.386                      | 1.024                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FM331K           | 0.945                     | 0.386                      | 1.024                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FN331K           | 0.945                     | 0.386                      | 1.024                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 25FE331K           | 1.142                     | 0.465                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FM331K           | 1.142                     | 0.465                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FN331K           | 1.142                     | 0.465                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 14FE361K           | 0.748                     | 0.386                      | 0.827                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FM361K           | 0.748                     | 0.386                      | 0.827                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FN361K           | 0.748                     | 0.386                      | 0.827                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 20FE361K           | 0.945                     | 0.386                      | 1.024                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FM361K           | 0.945                     | 0.386                      | 1.024                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FN361K           | 0.945                     | 0.386                      | 1.024                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 25FE361K           | 1.142                     | 0.465                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FM361K           | 1.142                     | 0.465                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FN361K           | 1.142                     | 0.465                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 14FE391K           | 0.748                     | 0.386                      | 0.827                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FM391K           | 0.748                     | 0.386                      | 0.827                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FN391K           | 0.748                     | 0.386                      | 0.827                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 20FE391K           | 0.945                     | 0.386                      | 1.024                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FM391K           | 0.945                     | 0.386                      | 1.024                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FN391K           | 0.945                     | 0.386                      | 1.024                   | 0.295                       | 0.039                       | 0.150                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 25FE391K           | 1.142                     | 0.465                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FM391K           | 1.142                     | 0.465                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FN391K           | 1.142                     | 0.465                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |

NOTE: Alternate dimensional specifications, including lead styles, for any part listed may be available upon request. Please contact us for any inquiries.

# THERMALLY PROTECTED SERIES

## SPECIFICATIONS

### 275VAC thru 420VAC VARISTORS

| Maida<br>Style<br>Number | Recognitions<br>To<br>Safety<br>Agency<br>Standards | Nominal<br>Size | Minimum<br>Marking | Maximum Ratings        |                     |           |     |   |      |                    |       | Electrical Characteristics      |     |   |      |                  |  |  |  |  |  |  |
|--------------------------|---|-----------------|--------------------|------------------------|---------------------|-----------|-----|---|------|--------------------|-------|---------------------------------|-----|---|------|------------------|--|--|--|--|--|--|
|                          |   |                 |                    | Continuous             |                     | Transient |     |   |      |                    |       | Varistor<br>Voltage<br>@1 mA DC |     | Max<br>Clamping<br>Voltage<br>(@Test Current) |      | Typical<br>Cap.  |  |  |  |  |  |  |
|                          |   |                 |                    | Applied<br>Voltage     |                     | Energy    |     | Peak<br>Current<br>8 x 20 $\mu$ sec<br># Pulses |      |                    |       |                                 |     |   |      |                  |  |  |  |  |  |  |
|                          |   |                 |                    | 10 x 1000<br>$\mu$ sec | 8 x 20<br>$\mu$ sec | 1         | 2   | Vmin  | Vmax | (8 x 20 $\mu$ sec) |       |                                 |     |   |      |                  |  |  |  |  |  |  |
|                          |   |                 |                    | (AC)                   | (DC)                | (J)       | (J) | (A)   | (A)  | (V)                | (V)   | (V)                             | (A) | (A)   | (pF) | 1 V rms<br>@1kHz |  |  |  |  |  |  |
| 14FE431K                 | X   |                 |                    | 14                     | MDC-FV-14E431K      | 275       | 350 | 155   | 155  | 6000               | 4500  | 387                             | 473 | 710   | 50   | 460              |  |  |  |  |  |  |
| 14FM431K                 | X   |                 |                    | 14                     | MDC-FV-14M431K      | 275       | 350 | 155   | 155  | 6000               | 4500  | 387                             | 473 | 710   | 50   | 460              |  |  |  |  |  |  |
| 14FN431K                 | X   |                 |                    | 14                     | MDC-FV-14N431K      | 275       | 350 | 155   | 155  | 6000               | 4500  | 387                             | 473 | 710   | 50   | 460              |  |  |  |  |  |  |
| 20FE431K                 | X   |                 |                    | 20                     | MDC-FV-20E431K      | 275       | 350 | 270   | 270  | 10000              | 6000  | 387                             | 473 | 710   | 100  | 930              |  |  |  |  |  |  |
| 20FM431K                 | X   |                 |                    | 20                     | MDC-FV-20M431K      | 275       | 350 | 270   | 270  | 10000              | 6000  | 387                             | 473 | 710   | 100  | 930              |  |  |  |  |  |  |
| 20FN431K                 | X   |                 |                    | 20                     | MDC-FV-20N431K      | 275       | 350 | 270   | 270  | 10000              | 6000  | 387                             | 473 | 710   | 100  | 930              |  |  |  |  |  |  |
| 25FE431K                 | X   |                 |                    | 25                     | MDC-FV-25E431K      | 275       | 350 | 440   | 440  | 15000              | 12000 | 387                             | 473 | 710   | 150  | 1500             |  |  |  |  |  |  |
| 25FM431K                 | X   |                 |                    | 25                     | MDC-FV-25M431K      | 275       | 350 | 440   | 440  | 15000              | 12000 | 387                             | 473 | 710   | 150  | 1500             |  |  |  |  |  |  |
| 25FN431K                 | X   |                 |                    | 25                     | MDC-FV-25N431K      | 275       | 350 | 440   | 440  | 15000              | 12000 | 387                             | 473 | 710   | 150  | 1500             |  |  |  |  |  |  |
| 14FE471K                 | X   |                 |                    | 14                     | MDC-FV-14E471K      | 300       | 385 | 175   | 175  | 6000               | 4500  | 423                             | 517 | 775   | 50   | 430              |  |  |  |  |  |  |
| 14FM471K                 | X   |                 |                    | 14                     | MDC-FV-14M471K      | 300       | 385 | 175   | 175  | 6000               | 4500  | 423                             | 517 | 775   | 50   | 430              |  |  |  |  |  |  |
| 14FN471K                 | X   |                 |                    | 14                     | MDC-FV-14N471K      | 300       | 385 | 175   | 175  | 6000               | 4500  | 423                             | 517 | 775   | 50   | 430              |  |  |  |  |  |  |
| 20FE471K                 | X   |                 |                    | 20                     | MDC-FV-20E471K      | 300       | 385 | 350   | 350  | 10000              | 6000  | 423                             | 517 | 775   | 100  | 850              |  |  |  |  |  |  |
| 20FM471K                 | X   |                 |                    | 20                     | MDC-FV-20M471K      | 300       | 385 | 350   | 350  | 10000              | 6000  | 423                             | 517 | 775   | 100  | 850              |  |  |  |  |  |  |
| 20FN471K                 | X   |                 |                    | 20                     | MDC-FV-20N471K      | 300       | 385 | 350   | 350  | 10000              | 6000  | 423                             | 517 | 775   | 100  | 850              |  |  |  |  |  |  |
| 25FE471K                 | X   |                 |                    | 25                     | MDC-FV-25E471K      | 300       | 385 | 490   | 490  | 15000              | 12000 | 423                             | 517 | 775   | 150  | 1400             |  |  |  |  |  |  |
| 25FM471K                 | X   |                 |                    | 25                     | MDC-FV-25M471K      | 300       | 385 | 490   | 490  | 15000              | 12000 | 423                             | 517 | 775   | 150  | 1400             |  |  |  |  |  |  |
| 25FN471K                 | X   |                 |                    | 25                     | MDC-FV-25N471K      | 300       | 385 | 490   | 490  | 15000              | 12000 | 423                             | 517 | 775   | 150  | 1400             |  |  |  |  |  |  |
| 14FE511K                 | X   |                 |                    | 14                     | MDC-FV-14E511K      | 320       | 415 | 190   | 190  | 6000               | 4500  | 459                             | 561 | 845   | 50   | 390              |  |  |  |  |  |  |
| 14FM511K                 | X   |                 |                    | 14                     | MDC-FV-14M511K      | 320       | 415 | 190   | 190  | 6000               | 4500  | 459                             | 561 | 845   | 50   | 390              |  |  |  |  |  |  |
| 14FN511K                 | X   |                 |                    | 14                     | MDC-FV-14N511K      | 320       | 415 | 190   | 190  | 6000               | 4500  | 459                             | 561 | 845   | 50   | 390              |  |  |  |  |  |  |
| 20FE511K                 | X   |                 |                    | 20                     | MDC-FV-20E511K      | 320       | 415 | 380   | 380  | 10000              | 6000  | 459                             | 561 | 845   | 100  | 780              |  |  |  |  |  |  |
| 20FM511K                 | X   |                 |                    | 20                     | MDC-FV-20M511K      | 320       | 415 | 380   | 380  | 10000              | 6000  | 459                             | 561 | 845   | 100  | 780              |  |  |  |  |  |  |
| 20FN511K                 | X   |                 |                    | 20                     | MDC-FV-20N511K      | 320       | 415 | 380   | 380  | 10000              | 6000  | 459                             | 561 | 845   | 100  | 780              |  |  |  |  |  |  |
| 25FE511K                 | X   |                 |                    | 25                     | MDC-FV-25E511K      | 320       | 415 | 530   | 530  | 15000              | 12000 | 459                             | 561 | 845   | 150  | 1250             |  |  |  |  |  |  |
| 25FM511K                 | X   |                 |                    | 25                     | MDC-FV-25M511K      | 320       | 415 | 530   | 530  | 15000              | 12000 | 459                             | 561 | 845   | 150  | 1250             |  |  |  |  |  |  |
| 25FN511K                 | X   |                 |                    | 25                     | MDC-FV-25N511K      | 320       | 415 | 530   | 530  | 15000              | 12000 | 459                             | 561 | 845   | 150  | 1250             |  |  |  |  |  |  |
| 14FE561K                 | X   |                 |                    | 14                     | MDC-FV-14E561K      | 350       | 460 | 200   | 200  | 6000               | 4500  | 504                             | 616 | 925   | 50   | 360              |  |  |  |  |  |  |
| 14FM561K                 | X   |                 |                    | 14                     | MDC-FV-14M561K      | 350       | 460 | 200   | 200  | 6000               | 4500  | 504                             | 616 | 925   | 50   | 360              |  |  |  |  |  |  |
| 14FN561K                 | X   |                 |                    | 14                     | MDC-FV-14N561K      | 350       | 460 | 200   | 200  | 6000               | 4500  | 504                             | 616 | 925   | 50   | 360              |  |  |  |  |  |  |
| 20FE561K                 | X   |                 |                    | 20                     | MDC-FV-20E561K      | 350       | 460 | 400   | 400  | 10000              | 6000  | 504                             | 616 | 925   | 100  | 710              |  |  |  |  |  |  |
| 20FM561K                 | X   |                 |                    | 20                     | MDC-FV-20M561K      | 350       | 460 | 400   | 400  | 10000              | 6000  | 504                             | 616 | 925   | 100  | 710              |  |  |  |  |  |  |
| 20FN561K                 | X   |                 |                    | 20                     | MDC-FV-20N561K      | 350       | 460 | 400   | 400  | 10000              | 6000  | 504                             | 616 | 925   | 100  | 710              |  |  |  |  |  |  |
| 25FE561K                 | X   |                 |                    | 25                     | MDC-FV-25E561K      | 350       | 460 | 560   | 560  | 15000              | 12000 | 504                             | 616 | 925   | 150  | 1150             |  |  |  |  |  |  |
| 25FM561K                 | X   |                 |                    | 25                     | MDC-FV-25M561K      | 350       | 460 | 560   | 560  | 15000              | 12000 | 504                             | 616 | 925   | 150  | 1150             |  |  |  |  |  |  |
| 25FN561K                 | X   |                 |                    | 25                     | MDC-FV-25N561K      | 350       | 460 | 560   | 560  | 15000              | 12000 | 504                             | 616 | 925   | 150  | 1150             |  |  |  |  |  |  |
| 14FE621K                 | X   |                 |                    | 14                     | MDC-FV-14E621K      | 385       | 505 | 210   | 210  | 6000               | 4500  | 558                             | 682 | 1025  | 50   | 320              |  |  |  |  |  |  |
| 14FM621K                 | X   |                 |                    | 14                     | MDC-FV-14M621K      | 385       | 505 | 210   | 210  | 6000               | 4500  | 558                             | 682 | 1025  | 50   | 320              |  |  |  |  |  |  |
| 14FN621K                 | X   |                 |                    | 14                     | MDC-FV-14N621K      | 385       | 505 | 210   | 210  | 6000               | 4500  | 558                             | 682 | 1025  | 50   | 320              |  |  |  |  |  |  |
| 20FE621K                 | X   |                 |                    | 20                     | MDC-FV-20E621K      | 385       | 505 | 425   | 425  | 10000              | 6000  | 558                             | 682 | 1025  | 100  | 650              |  |  |  |  |  |  |
| 20FM621K                 | X   |                 |                    | 20                     | MDC-FV-20M621K      | 385       | 505 | 425   | 425  | 10000              | 6000  | 558                             | 682 | 1025  | 100  | 650              |  |  |  |  |  |  |
| 20FN621K                 | X   |                 |                    | 20                     | MDC-FV-20N621K      | 385       | 505 | 425   | 425  | 10000              | 6000  | 558                             | 682 | 1025  | 100  | 650              |  |  |  |  |  |  |
| 25FE621K                 | X   |                 |                    | 25                     | MDC-FV-25E621K      | 385       | 505 | 590   | 590  | 15000              | 12000 | 558                             | 682 | 1025  | 150  | 1050             |  |  |  |  |  |  |
| 25FM621K                 | X   |                 |                    | 25                     | MDC-FV-25M621K      | 385       | 505 | 590   | 590  | 15000              | 12000 | 558                             | 682 | 1025  | 150  | 1050             |  |  |  |  |  |  |
| 25FN621K                 | X   |                 |                    | 25                     | MDC-FV-25N621K      | 385       | 505 | 590   | 590  | 15000              | 12000 | 558                             | 682 | 1025  | 150  | 1050             |  |  |  |  |  |  |
| 14FE681K                 | X   |                 |                    | 14                     | MDC-FV-14E681K      | 420       | 560 | 220   | 220  | 6000               | 4500  | 612                             | 748 | 1120  | 50   | 290              |  |  |  |  |  |  |
| 14FM681K                 | X   |                 |                    | 14                     | MDC-FV-14M681K      | 420       | 560 | 220   | 220  | 6000               | 4500  | 612                             | 748 | 1120  | 50   | 290              |  |  |  |  |  |  |
| 14FN681K                 | X   |                 |                    | 14                     | MDC-FV-14N681K      | 420       | 560 | 220   | 220  | 6000               | 4500  | 612                             | 748 | 1120  | 50   | 290              |  |  |  |  |  |  |
| 20FE681K                 | X   |                 |                    | 20                     | MDC-FV-20E681K      | 420       | 560 | 455   | 455  | 10000              | 6000  | 612                             | 748 | 1120  | 100  | 600              |  |  |  |  |  |  |
| 20FM681K                 | X   |                 |                    | 20                     | MDC-FV-20M681K      | 420       | 560 | 455   | 455  | 10000              | 6000  | 612                             | 748 | 1120  | 100  | 600              |  |  |  |  |  |  |
| 20FN681K                 | X   |                 |                    | 20                     | MDC-FV-20N681K      | 420       | 560 | 455   | 455  | 10000              | 6000  | 612                             | 748 | 1120  | 100  | 600              |  |  |  |  |  |  |
| 25FE681K                 | X   |                 |                    | 25                     | MDC-FV-25E681K      | 420       | 560 | 620   | 620  | 15000              | 12000 | 612                             | 748 | 1120  | 150  | 950              |  |  |  |  |  |  |
| 25FM681K                 | X   |                 |                    | 25                     | MDC-FV-25M681K      | 420       | 560 | 620   | 620  | 15000              | 12000 | 612                             | 748 | 1120  | 150  | 950              |  |  |  |  |  |  |
| 25FN681K                 | X   |                 |                    | 25                     | MDC-FV-25N681K      | 420       | 560 | 620   | 620  | 15000              | 12000 | 612                             | 748 | 1120  | 150  | 950              |  |  |  |  |  |  |

NOTES:

Appendix A lists the single-pulse peak current and energy ratings on file with the Safety Agencies.

Maximum transient rating specified in this table are valid. They may differ from those shown in Appendix A.

A = UL1449

D = VDE

B = cUL

E =

C = CSA

F =

## 275VAC thru 420VAC VARISTORS

| Maida Style Number | MAX. Diameter (D)<br>(in) | MAX. Thickness (T)<br>(in) | MAX. Height (H)<br>(in) | Typical X Dimension<br>(in) | Typical X Tolerance<br>(in) | Typical Y Dimension<br>(in) | Typical Y Tolerance<br>(in) | Typical Z Dimension<br>(in) | Typical Z Tolerance<br>(in) | Typical Wire Diameter (d)<br>(in) |
|--------------------|---------------------------|----------------------------|-------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------------|
| 14FE431K           | 0.748                     | 0.453                      | 0.827                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FM431K           | 0.748                     | 0.453                      | 0.827                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FN431K           | 0.748                     | 0.453                      | 0.827                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 20FE431K           | 0.945                     | 0.453                      | 1.024                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FM431K           | 0.945                     | 0.453                      | 1.024                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FN431K           | 0.945                     | 0.453                      | 1.024                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 25FE431K           | 1.142                     | 0.531                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FM431K           | 1.142                     | 0.531                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FN431K           | 1.142                     | 0.531                      | 1.260                   | 0.492                       | 0.039                       | 0.150                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 14FE471K           | 0.748                     | 0.453                      | 0.827                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FM471K           | 0.748                     | 0.453                      | 0.827                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FN471K           | 0.748                     | 0.453                      | 0.827                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 20FE471K           | 0.945                     | 0.453                      | 1.024                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FM471K           | 0.945                     | 0.453                      | 1.024                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FN471K           | 0.945                     | 0.453                      | 1.024                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 25FE471K           | 1.142                     | 0.531                      | 1.260                   | 0.492                       | 0.039                       | 0.217                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FM471K           | 1.142                     | 0.531                      | 1.260                   | 0.492                       | 0.039                       | 0.217                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FN471K           | 1.142                     | 0.531                      | 1.260                   | 0.492                       | 0.039                       | 0.217                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 14FE511K           | 0.748                     | 0.453                      | 0.827                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FM511K           | 0.748                     | 0.453                      | 0.827                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FN511K           | 0.748                     | 0.453                      | 0.827                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 20FE511K           | 0.945                     | 0.453                      | 1.024                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FM511K           | 0.945                     | 0.453                      | 1.024                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FN511K           | 0.945                     | 0.453                      | 1.024                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 25FE511K           | 1.142                     | 0.531                      | 1.260                   | 0.492                       | 0.039                       | 0.217                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FM511K           | 1.142                     | 0.531                      | 1.260                   | 0.492                       | 0.039                       | 0.217                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FN511K           | 1.142                     | 0.531                      | 1.260                   | 0.492                       | 0.039                       | 0.217                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 14FE561K           | 0.748                     | 0.453                      | 0.827                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FM561K           | 0.748                     | 0.453                      | 0.827                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FN561K           | 0.748                     | 0.453                      | 0.827                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 20FE561K           | 0.945                     | 0.453                      | 1.024                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FM561K           | 0.945                     | 0.453                      | 1.024                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FN561K           | 0.945                     | 0.453                      | 1.024                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 25FE561K           | 1.142                     | 0.531                      | 1.260                   | 0.492                       | 0.039                       | 0.217                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FM561K           | 1.142                     | 0.531                      | 1.260                   | 0.492                       | 0.039                       | 0.217                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FN561K           | 1.142                     | 0.531                      | 1.260                   | 0.492                       | 0.039                       | 0.217                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 14FE621K           | 0.748                     | 0.453                      | 0.827                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FM621K           | 0.748                     | 0.453                      | 0.827                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FN621K           | 0.748                     | 0.453                      | 0.827                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 20FE621K           | 0.945                     | 0.453                      | 1.024                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FM621K           | 0.945                     | 0.453                      | 1.024                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FN621K           | 0.945                     | 0.453                      | 1.024                   | 0.295                       | 0.039                       | 0.217                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 25FE621K           | 1.142                     | 0.531                      | 1.260                   | 0.492                       | 0.039                       | 0.217                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FM621K           | 1.142                     | 0.531                      | 1.260                   | 0.492                       | 0.039                       | 0.217                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FN621K           | 1.142                     | 0.531                      | 1.260                   | 0.492                       | 0.039                       | 0.217                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 14FE681K           | 0.748                     | 0.543                      | 0.827                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FM681K           | 0.748                     | 0.543                      | 0.827                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FN681K           | 0.748                     | 0.543                      | 0.827                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 20FE681K           | 0.945                     | 0.543                      | 1.024                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FM681K           | 0.945                     | 0.543                      | 1.024                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FN681K           | 0.945                     | 0.543                      | 1.024                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 25FE681K           | 1.142                     | 0.622                      | 1.260                   | 0.492                       | 0.039                       | 0.307                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FM681K           | 1.142                     | 0.622                      | 1.260                   | 0.492                       | 0.039                       | 0.307                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FN681K           | 1.142                     | 0.622                      | 1.260                   | 0.492                       | 0.039                       | 0.307                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |

NOTE: Alternate dimensional specifications, including lead styles, for any part listed may be available upon request. Please contact us for any inquiries.

# THERMALLY PROTECTED SERIES

## SPECIFICATIONS

### 460VAC thru 680VAC VARISTORS

| Maida<br>Style<br>Number | Recognitions<br>To<br>Safety<br>Agency<br>Standards | Nominal<br>Size | Minimum<br>Marking | Maximum Ratings    |   |           |   |                        |   | Electrical Characteristics                      |                |                                 |     |   |      |                    |       |      |      |      |     |     |
|--------------------------|---|-----------------|--------------------|--------------------|---|-----------|---|------------------------|---|---|----------------|---------------------------------|-----|---|------|--------------------|-------|------|------|------|-----|-----|
|                          |   |                 |                    | Continuous         |   | Transient |   |                        |   | Peak<br>Current<br>8 x 20 $\mu$ sec<br># Pulses |                | Varistor<br>Voltage<br>@1 mA DC |     | Max<br>Clamping<br>Voltage<br>(@Test Current) |      | Typical<br>Cap.    |       |      |      |      |     |     |
|                          |   |                 |                    | Applied<br>Voltage |   | Energy    |   | 10 x 1000<br>$\mu$ sec |   | 8 x 20 $\mu$ sec                                |                |                                 |     | 1   |      | (8 x 20 $\mu$ sec) |       |      |      |      |     |     |
|                          |   |                 |                    | (AC)               |   | (DC)      |   | $\mu$ sec              |   | $\mu$ sec                                       |                | 1                               |     | Vmin  | Vmax |                    |       |      |      |      |     |     |
|                          |   |                 |                    | A                  | B | C         | D | E                      | F | (mm)  |                | (J)                             | (J) | (A)   | (A)  | (V)                | (A)   | (pF) |      |      |     |     |
| 14FE751K                 |   |                 |                    |                    |   |           |   |                        |   | 14  | MDC-FV-14E751K | 460                             | 615 | 225   | 225  | 6000               | 4500  | 675  | 825  | 1240 | 50  | 270 |
| 14FM751K                 |   |                 |                    |                    |   |           |   |                        |   | 14  | MDC-FV-14M751K | 460                             | 615 | 225   | 225  | 6000               | 4500  | 675  | 825  | 1240 | 50  | 270 |
| 14FN751K                 |   |                 |                    |                    |   |           |   |                        |   | 14  | MDC-FV-14N751K | 460                             | 615 | 225   | 225  | 6000               | 4500  | 675  | 825  | 1240 | 50  | 270 |
| 20FE751K                 |   |                 |                    |                    |   |           |   |                        |   | 20  | MDC-FV-20E751K | 460                             | 615 | 455   | 455  | 10000              | 6000  | 675  | 825  | 1240 | 100 | 530 |
| 20FM751K                 |   |                 |                    |                    |   |           |   |                        |   | 20  | MDC-FV-20M751K | 460                             | 615 | 455   | 455  | 10000              | 6000  | 675  | 825  | 1240 | 100 | 530 |
| 20FN751K                 |   |                 |                    |                    |   |           |   |                        |   | 20  | MDC-FV-20N751K | 460                             | 615 | 455   | 455  | 10000              | 6000  | 675  | 825  | 1240 | 100 | 530 |
| 25FE751K                 |   |                 |                    |                    |   |           |   |                        |   | 25  | MDC-FV-25E751K | 460                             | 615 | 630   | 630  | 15000              | 12000 | 675  | 825  | 1240 | 150 | 850 |
| 25FM751K                 |   |                 |                    |                    |   |           |   |                        |   | 25  | MDC-FV-25M751K | 460                             | 615 | 630   | 630  | 15000              | 12000 | 675  | 825  | 1240 | 150 | 850 |
| 25FN751K                 |   |                 |                    |                    |   |           |   |                        |   | 25  | MDC-FV-25N751K | 460                             | 615 | 630   | 630  | 15000              | 12000 | 675  | 825  | 1240 | 150 | 850 |
| 14FE781K                 |   |                 |                    |                    |   |           |   |                        |   | 14  | MDC-FV-14E781K | 485                             | 640 | 240   | 240  | 6000               | 4500  | 702  | 858  | 1290 | 50  | 260 |
| 14FM781K                 |   |                 |                    |                    |   |           |   |                        |   | 14  | MDC-FV-14M781K | 485                             | 640 | 240   | 240  | 6000               | 4500  | 702  | 858  | 1290 | 50  | 260 |
| 14FN781K                 |   |                 |                    |                    |   |           |   |                        |   | 14  | MDC-FV-14N781K | 485                             | 640 | 240   | 240  | 6000               | 4500  | 702  | 858  | 1290 | 50  | 260 |
| 20FE781K                 |   |                 |                    |                    |   |           |   |                        |   | 20  | MDC-FV-20E781K | 485                             | 640 | 455   | 455  | 10000              | 6000  | 702  | 858  | 1290 | 100 | 510 |
| 20FM781K                 |   |                 |                    |                    |   |           |   |                        |   | 20  | MDC-FV-20M781K | 485                             | 640 | 455   | 455  | 10000              | 6000  | 702  | 858  | 1290 | 100 | 510 |
| 20FN781K                 |   |                 |                    |                    |   |           |   |                        |   | 20  | MDC-FV-20N781K | 485                             | 640 | 455   | 455  | 10000              | 6000  | 702  | 858  | 1290 | 100 | 510 |
| 25FE781K                 |   |                 |                    |                    |   |           |   |                        |   | 25  | MDC-FV-25E781K | 485                             | 640 | 675   | 675  | 15000              | 12000 | 702  | 858  | 1290 | 150 | 800 |
| 25FM781K                 |   |                 |                    |                    |   |           |   |                        |   | 25  | MDC-FV-25M781K | 485                             | 640 | 675   | 675  | 15000              | 12000 | 702  | 858  | 1290 | 150 | 800 |
| 25FN781K                 |   |                 |                    |                    |   |           |   |                        |   | 25  | MDC-FV-25N781K | 485                             | 640 | 675   | 675  | 15000              | 12000 | 702  | 858  | 1290 | 150 | 800 |
| 14FE821K                 |   |                 |                    |                    |   |           |   |                        |   | 14  | MDC-FV-14E821K | 510                             | 670 | 245   | 245  | 6000               | 4500  | 738  | 902  | 1355 | 50  | 240 |
| 14FM821K                 |   |                 |                    |                    |   |           |   |                        |   | 14  | MDC-FV-14M821K | 510                             | 670 | 245   | 245  | 6000               | 4500  | 738  | 902  | 1355 | 50  | 240 |
| 14FN821K                 |   |                 |                    |                    |   |           |   |                        |   | 14  | MDC-FV-14N821K | 510                             | 670 | 245   | 245  | 6000               | 4500  | 738  | 902  | 1355 | 50  | 240 |
| 20FE821K                 |   |                 |                    |                    |   |           |   |                        |   | 20  | MDC-FV-20E821K | 510                             | 670 | 475   | 475  | 10000              | 6000  | 738  | 902  | 1355 | 100 | 500 |
| 20FM821K                 |   |                 |                    |                    |   |           |   |                        |   | 20  | MDC-FV-20M821K | 510                             | 670 | 475   | 475  | 10000              | 6000  | 738  | 902  | 1355 | 100 | 500 |
| 20FN821K                 |   |                 |                    |                    |   |           |   |                        |   | 20  | MDC-FV-20N821K | 510                             | 670 | 475   | 475  | 10000              | 6000  | 738  | 902  | 1355 | 100 | 500 |
| 25FE821K                 |   |                 |                    |                    |   |           |   |                        |   | 25  | MDC-FV-25E821K | 510                             | 670 | 690   | 690  | 15000              | 12000 | 738  | 902  | 1355 | 150 | 750 |
| 25FM821K                 |   |                 |                    |                    |   |           |   |                        |   | 25  | MDC-FV-25M821K | 510                             | 670 | 690   | 690  | 15000              | 12000 | 738  | 902  | 1355 | 150 | 750 |
| 25FN821K                 |   |                 |                    |                    |   |           |   |                        |   | 25  | MDC-FV-25N821K | 510                             | 670 | 690   | 690  | 15000              | 12000 | 738  | 902  | 1355 | 150 | 750 |
| 14FE911K                 |   |                 |                    |                    |   |           |   |                        |   | 14  | MDC-FV-14E911K | 550                             | 745 | 255   | 255  | 6000               | 4500  | 819  | 1001 | 1500 | 50  | 220 |
| 14FM911K                 |   |                 |                    |                    |   |           |   |                        |   | 14  | MDC-FV-14M911K | 550                             | 745 | 255   | 255  | 6000               | 4500  | 819  | 1001 | 1500 | 50  | 220 |
| 14FN911K                 |   |                 |                    |                    |   |           |   |                        |   | 14  | MDC-FV-14N911K | 550                             | 745 | 255   | 255  | 6000               | 4500  | 819  | 1001 | 1500 | 50  | 220 |
| 20FE911K                 |   |                 |                    |                    |   |           |   |                        |   | 20  | MDC-FV-20E911K | 550                             | 745 | 500   | 500  | 10000              | 6000  | 819  | 1001 | 1500 | 100 | 440 |
| 20FM911K                 |   |                 |                    |                    |   |           |   |                        |   | 20  | MDC-FV-20M911K | 550                             | 745 | 500   | 500  | 10000              | 6000  | 819  | 1001 | 1500 | 100 | 440 |
| 20FN911K                 |   |                 |                    |                    |   |           |   |                        |   | 20  | MDC-FV-20N911K | 550                             | 745 | 500   | 500  | 10000              | 6000  | 819  | 1001 | 1500 | 100 | 440 |
| 25FE911K                 |   |                 |                    |                    |   |           |   |                        |   | 25  | MDC-FV-25E911K | 550                             | 745 | 715   | 715  | 15000              | 12000 | 819  | 1001 | 1500 | 150 | 700 |
| 25FM911K                 |   |                 |                    |                    |   |           |   |                        |   | 25  | MDC-FV-25M911K | 550                             | 745 | 715   | 715  | 15000              | 12000 | 819  | 1001 | 1500 | 150 | 700 |
| 25FN911K                 |   |                 |                    |                    |   |           |   |                        |   | 25  | MDC-FV-25N911K | 550                             | 745 | 715   | 715  | 15000              | 12000 | 819  | 1001 | 1500 | 150 | 700 |
| 14FE102K                 |   |                 |                    |                    |   |           |   |                        |   | 14  | MDC-FV-14E102K | 625                             | 825 | 280   | 280  | 6000               | 4500  | 900  | 1100 | 1650 | 50  | 200 |
| 14FM102K                 |   |                 |                    |                    |   |           |   |                        |   | 14  | MDC-FV-14M102K | 625                             | 825 | 280   | 280  | 6000               | 4500  | 900  | 1100 | 1650 | 50  | 200 |
| 14FN102K                 |   |                 |                    |                    |   |           |   |                        |   | 14  | MDC-FV-14N102K | 625                             | 825 | 280   | 280  | 6000               | 4500  | 900  | 1100 | 1650 | 50  | 200 |
| 20FE102K                 |   |                 |                    |                    |   |           |   |                        |   | 20  | MDC-FV-20E102K | 625                             | 825 | 560   | 560  | 10000              | 6000  | 900  | 1100 | 1650 | 100 | 400 |
| 20FM102K                 |   |                 |                    |                    |   |           |   |                        |   | 20  | MDC-FV-20M102K | 625                             | 825 | 560   | 560  | 10000              | 6000  | 900  | 1100 | 1650 | 100 | 400 |
| 20FN102K                 |   |                 |                    |                    |   |           |   |                        |   | 20  | MDC-FV-20N102K | 625                             | 825 | 560   | 560  | 10000              | 6000  | 900  | 1100 | 1650 | 100 | 400 |
| 25FE102K                 |   |                 |                    |                    |   |           |   |                        |   | 25  | MDC-FV-25E102K | 625                             | 825 | 750   | 750  | 15000              | 12000 | 900  | 1100 | 1650 | 150 | 650 |
| 25FM102K                 |   |                 |                    |                    |   |           |   |                        |   | 25  | MDC-FV-25M102K | 625                             | 825 | 750   | 750  | 15000              | 12000 | 900  | 1100 | 1650 | 150 | 650 |
| 25FN102K                 |   |                 |                    |                    |   |           |   |                        |   | 25  | MDC-FV-25N102K | 625                             | 825 | 750   | 750  | 15000              | 12000 | 900  | 1100 | 1650 | 150 | 650 |
| 14FE112K                 |   |                 |                    |                    |   |           |   |                        |   | 14  | MDC-FV-14E112K | 680                             | 895 | 310   | 310  | 6000               | 4500  | 990  | 1210 | 1815 | 50  | 180 |
| 14FM112K                 |   |                 |                    |                    |   |           |   |                        |   | 14  | MDC-FV-14M112K | 680                             | 895 | 310   | 310  | 6000               | 4500  | 990  | 1210 | 1815 | 50  | 180 |
| 14FN112K                 |   |                 |                    |                    |   |           |   |                        |   | 14  | MDC-FV-14N112K | 680                             | 895 | 310   | 310  | 6000               | 4500  | 990  | 1210 | 1815 | 50  | 180 |
| 20FE112K                 |   |                 |                    |                    |   |           |   |                        |   | 20  | MDC-FV-20E112K | 680                             | 895 | 610   | 610  | 10000              | 6000  | 990  | 1210 | 1815 | 100 | 360 |
| 20FM112K                 |   |                 |                    |                    |   |           |   |                        |   | 20  | MDC-FV-20M112K | 680                             | 895 | 610   | 610  | 10000              | 6000  | 990  | 1210 | 1815 | 100 | 360 |
| 20FN112K                 |   |                 |                    |                    |   |           |   |                        |   | 20  | MDC-FV-20N112K | 680                             | 895 | 610   | 610  | 10000              | 6000  | 990  | 1210 | 1815 | 100 | 360 |
| 25FE112K                 |   |                 |                    |                    |   |           |   |                        |   | 25  | MDC-FV-25E112K | 680                             | 895 | 780   | 780  | 15000              | 12000 | 990  | 1210 | 1815 | 150 | 600 |
| 25FM112K                 |   |                 |                    |                    |   |           |   |                        |   | 25  | MDC-FV-25M112K | 680                             | 895 | 780   | 780  | 15000              | 12000 | 990  | 1210 | 1815 | 150 | 600 |
| 25FN112K                 |   |                 |                    |                    |   |           |   |                        |   | 25  | MDC-FV-25N112K | 680                             | 895 | 780   | 780  | 15000              | 12000 | 990  | 1210 | 1815 | 150 | 600 |

NOTES:

Appendix A lists the single-pulse peak current and energy ratings on file with the Safety Agencies.

Maximum transient rating specified in this table are valid. They may differ from those shown in Appendix A.

A = UL1449      D = VDE

B = cUL      E =

C = CSA      F =

## 460VAC thru 680VAC VARISTORS

| Maida Style Number | MAX. Diameter (D)<br>(in) | MAX. Thickness (T)<br>(in) | MAX. Height (H)<br>(in) | Typical X Dimension<br>(in) | Typical X Tolerance<br>(in) | Typical Y Dimension<br>(in) | Typical Y Tolerance<br>(in) | Typical Z Dimension<br>(in) | Typical Z Tolerance<br>(in) | Typical Wire Diameter (d)<br>(in) |
|--------------------|---------------------------|----------------------------|-------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------------|
| 14FE751K           | 0.748                     | 0.543                      | 0.827                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FM751K           | 0.748                     | 0.543                      | 0.827                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FN751K           | 0.748                     | 0.543                      | 0.827                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 20FE751K           | 0.945                     | 0.543                      | 1.024                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FM751K           | 0.945                     | 0.543                      | 1.024                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FN751K           | 0.945                     | 0.543                      | 1.024                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 25FE751K           | 1.142                     | 0.622                      | 1.260                   | 0.492                       | 0.039                       | 0.307                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FM751K           | 1.142                     | 0.622                      | 1.260                   | 0.492                       | 0.039                       | 0.307                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FN751K           | 1.142                     | 0.622                      | 1.260                   | 0.492                       | 0.039                       | 0.307                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 14FE781K           | 0.748                     | 0.543                      | 0.827                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FM781K           | 0.748                     | 0.543                      | 0.827                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FN781K           | 0.748                     | 0.543                      | 0.827                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 20FE781K           | 0.945                     | 0.543                      | 1.024                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FM781K           | 0.945                     | 0.543                      | 1.024                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FN781K           | 0.945                     | 0.543                      | 1.024                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 25FE781K           | 1.142                     | 0.622                      | 1.260                   | 0.492                       | 0.039                       | 0.307                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FM781K           | 1.142                     | 0.622                      | 1.260                   | 0.492                       | 0.039                       | 0.307                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FN781K           | 1.142                     | 0.622                      | 1.260                   | 0.492                       | 0.039                       | 0.307                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 14FE821K           | 0.748                     | 0.543                      | 0.827                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FM821K           | 0.748                     | 0.543                      | 0.827                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FN821K           | 0.748                     | 0.543                      | 0.827                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 20FE821K           | 0.945                     | 0.543                      | 1.024                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FM821K           | 0.945                     | 0.543                      | 1.024                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FN821K           | 0.945                     | 0.543                      | 1.024                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 25FE821K           | 1.142                     | 0.622                      | 1.260                   | 0.492                       | 0.039                       | 0.307                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FM821K           | 1.142                     | 0.622                      | 1.260                   | 0.492                       | 0.039                       | 0.307                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FN821K           | 1.142                     | 0.622                      | 1.260                   | 0.492                       | 0.039                       | 0.307                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 14FE911K           | 0.748                     | 0.543                      | 0.827                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FM911K           | 0.748                     | 0.543                      | 0.827                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FN911K           | 0.748                     | 0.543                      | 0.827                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 20FE911K           | 0.945                     | 0.543                      | 1.024                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FM911K           | 0.945                     | 0.543                      | 1.024                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FN911K           | 0.945                     | 0.543                      | 1.024                   | 0.295                       | 0.039                       | 0.307                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 25FE911K           | 1.142                     | 0.622                      | 1.260                   | 0.492                       | 0.039                       | 0.307                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FM911K           | 1.142                     | 0.622                      | 1.260                   | 0.492                       | 0.039                       | 0.307                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FN911K           | 1.142                     | 0.622                      | 1.260                   | 0.492                       | 0.039                       | 0.307                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 14FE102K           | 0.748                     | 0.630                      | 0.827                   | 0.295                       | 0.039                       | 0.394                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FM102K           | 0.748                     | 0.630                      | 0.827                   | 0.295                       | 0.039                       | 0.394                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FN102K           | 0.748                     | 0.630                      | 0.827                   | 0.295                       | 0.039                       | 0.394                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 20FE102K           | 0.945                     | 0.630                      | 1.024                   | 0.295                       | 0.039                       | 0.394                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FM102K           | 0.945                     | 0.630                      | 1.024                   | 0.295                       | 0.039                       | 0.394                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FN102K           | 0.945                     | 0.630                      | 1.024                   | 0.295                       | 0.039                       | 0.394                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 25FE102K           | 1.142                     | 0.709                      | 1.260                   | 0.492                       | 0.039                       | 0.394                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FM102K           | 1.142                     | 0.709                      | 1.260                   | 0.492                       | 0.039                       | 0.394                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FN102K           | 1.142                     | 0.709                      | 1.260                   | 0.492                       | 0.039                       | 0.394                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 14FE112K           | 0.748                     | 0.630                      | 0.827                   | 0.295                       | 0.039                       | 0.394                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FM112K           | 0.748                     | 0.630                      | 0.827                   | 0.295                       | 0.039                       | 0.394                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 14FN112K           | 0.748                     | 0.630                      | 0.827                   | 0.295                       | 0.039                       | 0.394                       | 0.030                       | 0.295                       | 0.039                       | 0.032                             |
| 20FE112K           | 0.945                     | 0.630                      | 1.024                   | 0.295                       | 0.039                       | 0.394                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FM112K           | 0.945                     | 0.630                      | 1.024                   | 0.295                       | 0.039                       | 0.394                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 20FN112K           | 0.945                     | 0.630                      | 1.024                   | 0.295                       | 0.039                       | 0.394                       | 0.030                       | 0.295                       | 0.039                       | 0.040                             |
| 25FE112K           | 1.142                     | 0.709                      | 1.260                   | 0.492                       | 0.039                       | 0.394                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FM112K           | 1.142                     | 0.709                      | 1.260                   | 0.492                       | 0.039                       | 0.394                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |
| 25FN112K           | 1.142                     | 0.709                      | 1.260                   | 0.492                       | 0.039                       | 0.394                       | 0.030                       | 0.492                       | 0.039                       | 0.040                             |

NOTE: Alternate dimensional specifications, including lead styles, for any part listed may be available upon request. Please contact us for any inquiries.

# THERMALLY PROTECTED SERIES

## SPECIFICATIONS

### 750VAC VARISTORS

| Maida<br>Style<br>Number | Recognitions<br>To<br>Safety<br>Agency<br>Standards | Nominal<br>Size | Minimum<br>Marking | Maximum Ratings |      |           |     |                        |                     | Electrical Characteristics |      |   |     |                                 |      |                 |
|--------------------------|---|-----------------|--------------------|-----------------|------|-----------|-----|------------------------|---------------------|----------------------------|------|---|-----|---------------------------------|------|-----------------|
|                          |   |                 |                    | Continuous      |      | Transient |     |                        |                     | Applied<br>Voltage         |      | Peak<br>Current<br>8 x 20 $\mu$ sec<br># Pulses |     | Varistor<br>Voltage<br>@1 mA DC |      | Typical<br>Cap. |
|                          |   |                 |                    |                 |      | Energy    |     | 10 x 1000<br>$\mu$ sec | 8 x 20<br>$\mu$ sec |                            |      | 1   | 2   | Vmin                            | Vmax |                 |
|                          |   |                 |                    | (AC)            | (DC) | (J)       | (J) | (A)                    | (A)                 |                            |      | (V)   | (V) | (V)                             | (A)  | (pF)            |
|                          |   |                 |                    | A               | B    | C         | D   | E                      | F                   |                            |      |   |     |                                 |      |                 |
|                          |   |                 |                    | (mm)            |      |           |     |                        |                     |                            |      |   |     |                                 |      |                 |
| 14FE122K                 |   | 14              | MDC-FV-14E122K     | 750             | 990  | 310       | 310 | 6000                   | 4500                | 1080                       | 1320 | 1980  | 50  | 150                             |      |                 |
| 14FM122K                 |   | 14              | MDC-FV-14M122K     | 750             | 990  | 310       | 310 | 6000                   | 4500                | 1080                       | 1320 | 1980  | 50  | 150                             |      |                 |
| 14FN122K                 |   | 14              | MDC-FV-14N122K     | 750             | 990  | 310       | 310 | 6000                   | 4500                | 1080                       | 1320 | 1980  | 50  | 150                             |      |                 |
| 20FE122K                 |   | 20              | MDC-FV-20E122K     | 750             | 990  | 650       | 650 | 10000                  | 6000                | 1080                       | 1320 | 1980  | 100 | 320                             |      |                 |
| 20FM122K                 |   | 20              | MDC-FV-20M122K     | 750             | 990  | 650       | 650 | 10000                  | 6000                | 1080                       | 1320 | 1980  | 100 | 320                             |      |                 |
| 20FN122K                 |   | 20              | MDC-FV-20N122K     | 750             | 990  | 650       | 650 | 10000                  | 6000                | 1080                       | 1320 | 1980  | 100 | 320                             |      |                 |
| 25FE122K                 |   | 25              | MDC-FV-25E122K     | 750             | 990  | 840       | 840 | 15000                  | 12000               | 1080                       | 1320 | 1980  | 150 | 550                             |      |                 |
| 25FM122K                 |   | 25              | MDC-FV-25M122K     | 750             | 990  | 840       | 840 | 15000                  | 12000               | 1080                       | 1320 | 1980  | 150 | 550                             |      |                 |
| 25FN122K                 |   | 25              | MDC-FV-25N122K     | 750             | 990  | 840       | 840 | 15000                  | 12000               | 1080                       | 1320 | 1980  | 150 | 550                             |      |                 |

#### NOTES:

Appendix A lists the single-pulse peak current and energy ratings on file with the Safety Agencies.

Maximum transient rating specified in this table are valid. They may differ from those shown in Appendix A.

A = UL1449      D = VDE  
 B = cUL      E =  
 C = CSA      F =

## 750VAC VARISTORS

| Maida<br>Style<br>Number | MAX.<br>Diameter<br>(D) | MAX.<br>Thickness<br>(T) | MAX.<br>Height<br>(H) | Typical<br>X<br>Dimension | Typical<br>X<br>Tolerance | Typical<br>Y<br>Dimension | Typical<br>Y<br>Tolerance | Typical<br>Z<br>Dimension | Typical<br>Z<br>Tolerance | Typical<br>Wire<br>Diameter<br>(d)<br>(in) |
|--------------------------|-------------------------|--------------------------|-----------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|--|
| 14FE122K                 | 0.748                   | 0.630                    | 0.827                 | 0.295                     | 0.039                     | 0.394                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 14FM122K                 | 0.748                   | 0.630                    | 0.827                 | 0.295                     | 0.039                     | 0.394                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 14FN122K                 | 0.748                   | 0.630                    | 0.827                 | 0.295                     | 0.039                     | 0.394                     | 0.030                     | 0.295                     | 0.039                     | 0.032                                      |
| 20FE122K                 | 0.945                   | 0.630                    | 1.024                 | 0.295                     | 0.039                     | 0.394                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 20FM122K                 | 0.945                   | 0.630                    | 1.024                 | 0.295                     | 0.039                     | 0.394                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 20FN122K                 | 0.945                   | 0.630                    | 1.024                 | 0.295                     | 0.039                     | 0.394                     | 0.030                     | 0.295                     | 0.039                     | 0.040                                      |
| 25FE122K                 | 1.142                   | 0.709                    | 1.260                 | 0.492                     | 0.039                     | 0.394                     | 0.030                     | 0.492                     | 0.039                     | 0.040                                      |
| 25FM122K                 | 1.142                   | 0.709                    | 1.260                 | 0.492                     | 0.039                     | 0.394                     | 0.030                     | 0.492                     | 0.039                     | 0.040                                      |
| 25FN122K                 | 1.142                   | 0.709                    | 1.260                 | 0.492                     | 0.039                     | 0.394                     | 0.030                     | 0.492                     | 0.039                     | 0.040                                      |

NOTE: Alternate dimensional specifications, including lead styles, for any part listed may be available upon request. Please contact us for any inquiries.