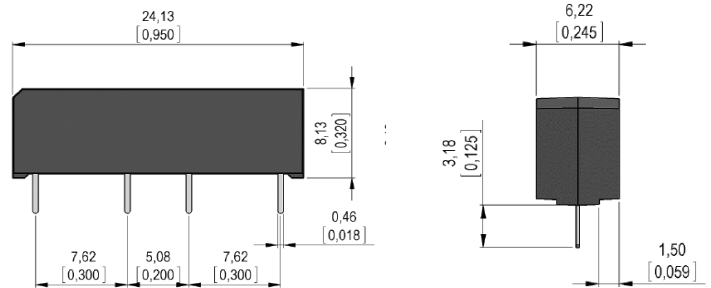
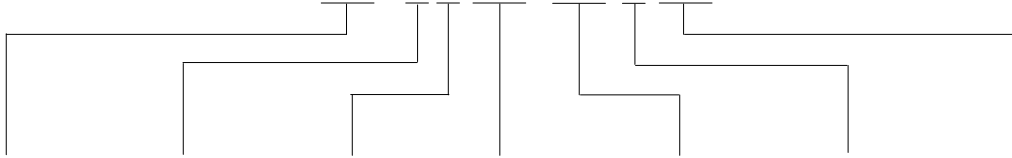


SHV Series Reed Relays



- Features: Small Size High Voltage Relay, High Dielectric Strength up to 4 kVDC, Internal Magnetic Shield
- Applications: Portable Test and Medical Equipment, Defibrillators, Cable and In-Circuit Tester & Others
- Markets: Test and Measurement, Medical & Others

Part Description: **SHV 00-1A85-78X0K**



| Nominal Voltage | Contact QTY | Contact Form | Switch Model | Pin Out | Option | Breakdown Voltage |
|-----------------|-------------|--------------|--------------|---------|--------|-------------------|
| 05, 12 | 1 | A | 85 | 78 | D, L | 2K, 3K, 4K |

| Customer Options | Switch Model | Unit |
|--|------------------|-------------|
| Contact Data | 85 | Unit |
| Rated Power (max.) Any DC combination of V&A not to exceed their individual max.'s | 100 | W |
| Switching Voltage (max.) DC or peak AC | 1,000 | V |
| Switching Current (max.) DC or peak AC | 1.0 | A |
| Carry Current (max.) DC or peak AC | 2.5 | A |
| Contact Resistance (max.) @ 0.5V & 50mA | 150 | mOhm |
| Breakdown Voltage (min.) According to EN60255-5 | 2 / 3 / 4 | kVDC |
| Operating Time (max.) Incl. Bounce; Measured with w/ Nominal Voltage | 1.1 | ms |
| Release Time (max.) Measured with no Coil Excitation | 0.1 | ms |
| Insulation Resistance (typ.) Rh<45%, 100V Test Voltage | 10 ¹⁰ | Ohm |
| Capacitance (typ.) @ 10kHz across open Switch | 0.5 | pF |

| Coil Data | | Coil Voltage (nom.) | Coil Resistance (typ.) | Pull-In Voltage (max.) | Drop-Out Voltage (min.) | Nominal Coil Power (typ.) |
|--------------|--------------|---------------------|------------------------|------------------------|-------------------------|---------------------------|
| Contact Form | Switch Model | | | | | |
| Unit | | VDC | Ohm | VDC | VDC | mW |
| 1A | 85 (3kV) | 05 | 180 | 3.75 | 0.5 | 139 |
| | | 12 | 500 | 8.4 | 1.8 | 288 |
| | 85 (4kV) | 05 | 140 | 3.75 | 0.5 | 179 |
| | | 12 | 500 | 8.4 | 1.8 | 288 |

The Pull-In / Drop-Out Voltage and Coil Resistance will change at rate of 0.4% per °C.

| Relay Data | | Unit |
|---|------------------|------|
| Dielectric Strength Coil/Contact (min.) according to EN60255-5 | 4 | kVDC |
| Insulation Resistance Coil/Contact (typ.) Rh<45%, 200V Test Voltage | 10 ¹² | Ohm |
| Capacitance Coil/Contact (typ.) @ 10 kHz | 1.2 | pF |
| Shock Resistance (max.) 1/2 sine wave duration 11ms | 30 | g |
| Vibration Resistance (max.) | 20 | g |
| Operating Temperature | -40 to 100 | °C |
| Storage Temperature | -40 to 125 | °C |
| Soldering Temperature (max.) 5 sec. max. | 260 | °C |
| Washability | Fully Sealed | |

SHV Reed Relay

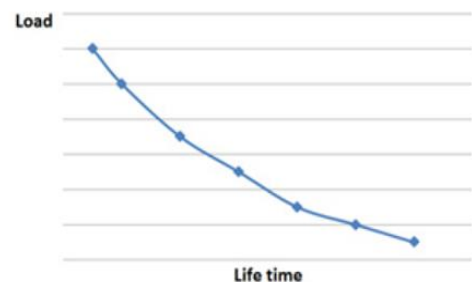


Handling & Assembly Instructions




- Switching inductive and/or capacitive loads creates voltage and/or current peaks, which may damage the relay. Protective circuits need to be used.
- External magnetic fields need to be taken into consideration, including a too high assembly density. This may influence the relays' electrical characteristics.
- Mechanical shock impacts, e.g. dropping the relays, may cause immediate or post-installation failure.

Life Test Data

*Load increase reduces life expectancy of Reed Switches



Glossary Contact Form

| | | |
|---------------|--|---|
| Form A | NO = Normally Open Contacts SPST = Single Pole Single Throw |  |
| Form B | NC = Normally Closed Contacts SPST = Single Pole Single Throw |  |
| Form C | Changeover SPDT = Single Pole Double Throw |  |



Pin Out

2.54mm [0.10"] pitch grid

