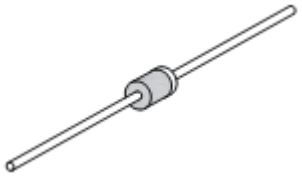
1A Standard Rectifiers

Features



DO-204AL
(DO-41)

- Low forward voltage drop
- Low leakage current
- High forward surge current capability
- High temperature soldering guaranteed: 265°C/10 seconds /.037" (9.5mm) lead length, 5lbs (2.3kg) tension
- RoHS compliance

Mechanical Data

Case:	DO-204AL, molded epoxy body
Epoxy:	Plastic package has UL flammability classification 94V-0
Terminals:	Plated axial leads, solderable per MIL-STD-202E, Method 208C
Polarity:	Color band denotes cathode end
Mounting Position:	Any
Weight:	0.0107 ounce, 0.294 gram

Maximum Ratings and Electrical Characteristics *(T_A=25ºC unless noted otherwise)*

Symbol	Description	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Unit	Conditions
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
V_{RMS}	Maximum RMS Voltage	35	70	140	280	420	560	700	V	
V_{DC}	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V	
$I_{F(AV)}$	Maximum Average Forward Rectified Current	1.0							A	0.375" (9.5 mm) lead length at T_A=75 °C
I_{FSM}	Peak Forward Surge Current	30							A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
$I_{R(AV)}$	Maximum Full Load Reverse Current, Full Cycle Average	30							µA	0.375" (9.5 mm) lead length at T_L=75 °C

1N4001 - 1N4007

Symbol	Description	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Unit	Conditions
I^2t	Rating for Fusing (t<8.3ms)	3.7							A^2s	Note 1
V_F	Maximum Instantaneous Forward Voltage	1.1							V	I_F=1.0A
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0							μA	T_A=25° C
		50								T_A=125° C
C_J	Typical Junction Capacitance	15							pF	V_R=4V, f=1MHz
R_{thJA}	Typical Thermal Resistance	50							°C / W	Note 2
R_{thJL}		25								
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-50 to +150							° C	

Note: 1. For device using on bridge rectifier application.

2. Thermal resistance from junction to ambient at 0.375” (9.5mm) lead length, P.C.B. mounted.

Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

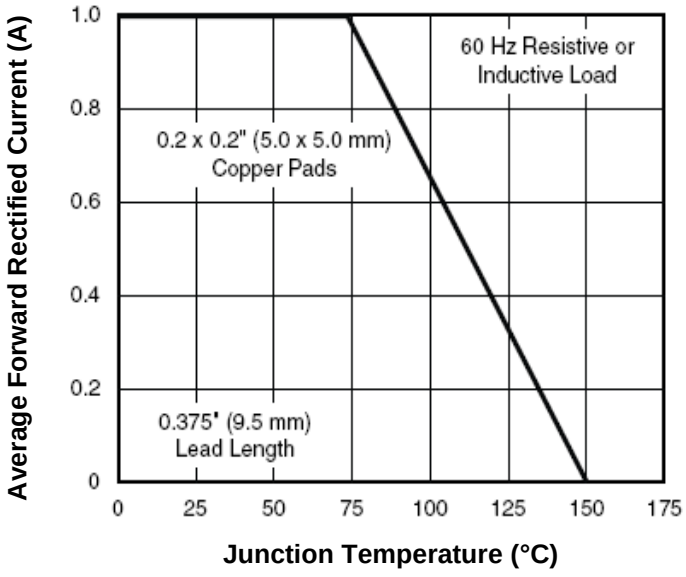


Fig.2-Max. Non-repetitive Peak Forward Surge Current

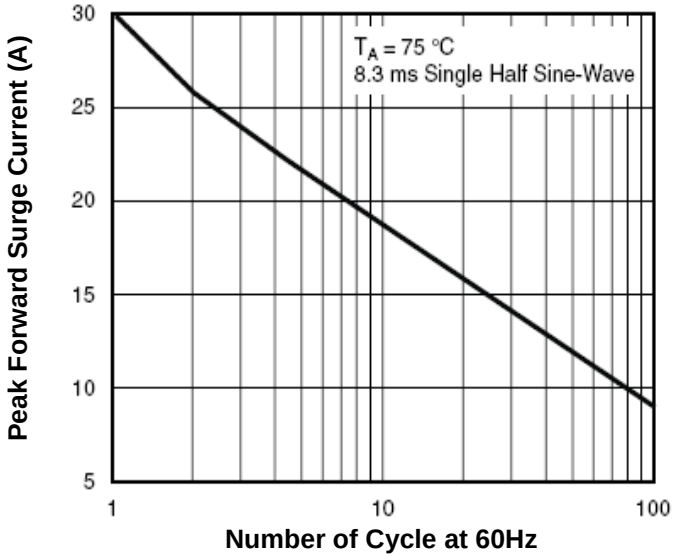


Fig.3-Typical Instantaneous Forward Characteristic

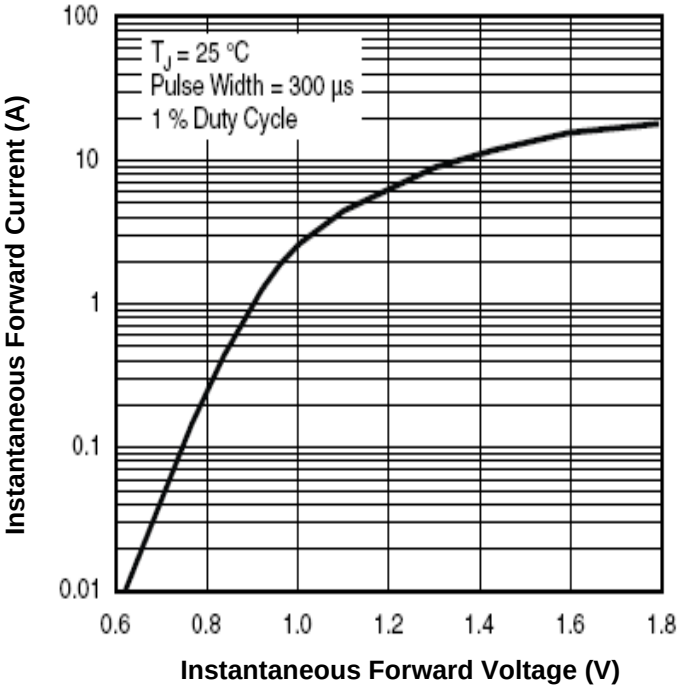


Fig.4-Typical Reverse Characteristics

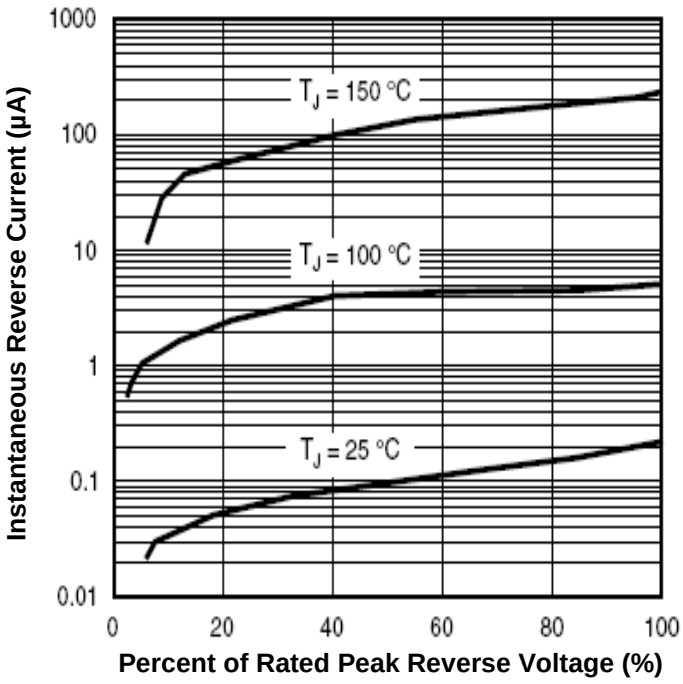
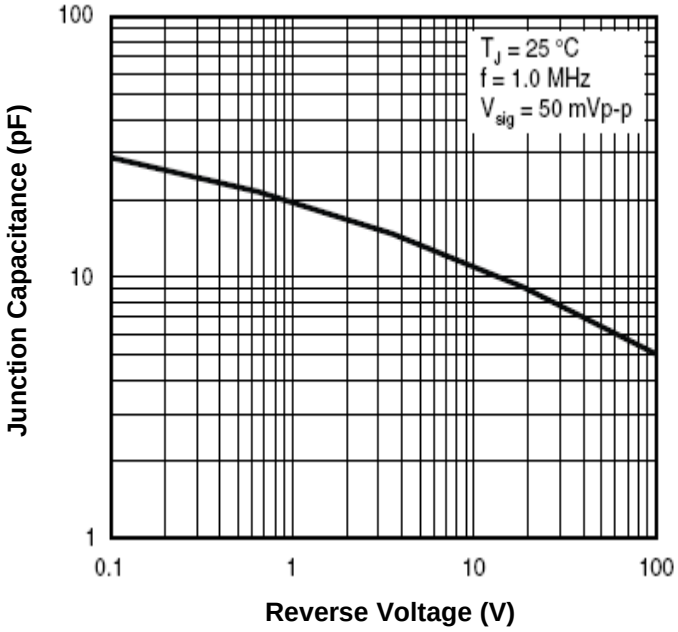
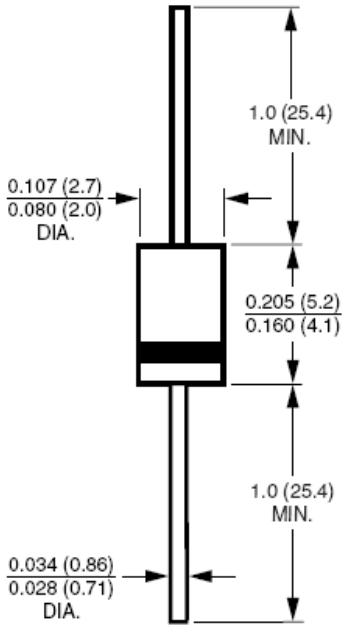


Fig.5-Typical Junction Capacitance



Dimensions in inch (mm)



DO-204AL
(DO-41)

Packing Information:

Packing Quantity Information:

Quantity	PCS per	PCS per Carton
Tape & Reel	5,000 / Reel	20,000
Bulk	1,000 / Box	50.000

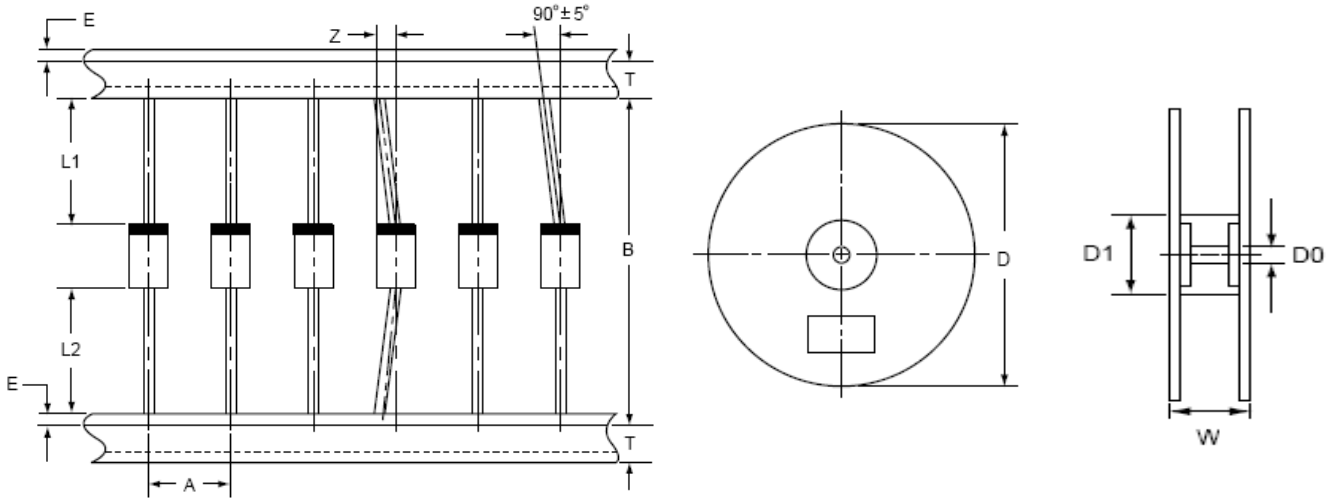
Carton Size Information:

Item	Carton Size
Tape & Reel	360X350X345 (in mm)
Bulk	475X225X260 (in mm)

Axial Lead Taping Specifications

Axial lead devices are packed in accordance with EIA standard RS-296-E and specifications given below.

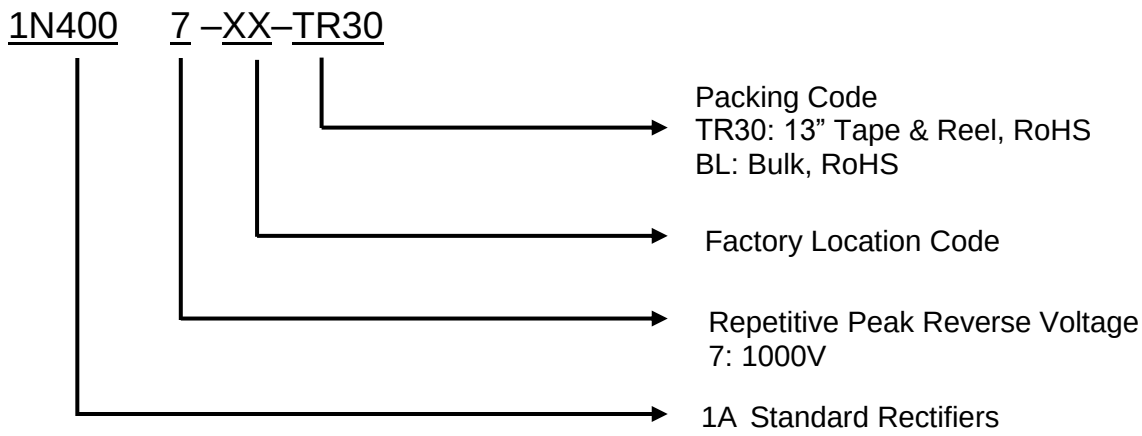
Outline	Component Pitch A	Inner Tape Pitch B	Cumulative Pitch Tolerance
DO-41	5.0mm±0.5mm	52.4mm+1.5mm/-0.4mm	Not to Exceed 1.5mm (0.059") over 6 consecutive components.



Item	Symbol	Specification (mm)	Specification (inch)
Component alignment	Z	1.2 max.	0.048 max.
Tape width	T	6.0±0.4	0.236±0.016
Exposed adhesive	E	0.8 max	0.032 max.
Body eccentricity	l L1-L2 l	1.0 max.	0.040 max.
Reel outside diameter	D	330.0	13.0
Reel inner diameter	D1	85.7±5.0	3.375±0.197
Feed hole diameter	D0	30.0±5.0	1.181±0.197
Reel width	W	79.0±1.0	3.110±0.040

Note: Each component lead shall be sandwiched between tapes for a minimum of 3.2mm (0.126")

How to Order



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