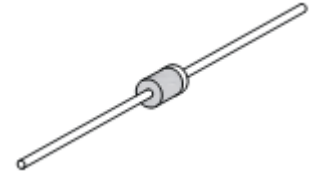


## 1A Standard Rectifiers

### Features

- 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



**DO-204AL  
(DO-41)**



### Mechanical Data

<b>Case:</b>	DO-204AL, molded epoxy body
<b>Epoxy:</b>	Plastic package has UL flammability classification 94V-0
<b>Terminals:</b>	Plated axial leads, solderable per MIL-STD-202E, Method 208C
<b>Polarity:</b>	Color band denotes cathode end
<b>Mounting Position:</b>	Any
<b>Weight:</b>	0.012 ounce, 0.33 gram

### Maximum Ratings and Electrical Characteristics ( $T_A=25^\circ\text{C}$ unless noted otherwise)

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

# 1A Standard Rectifiers

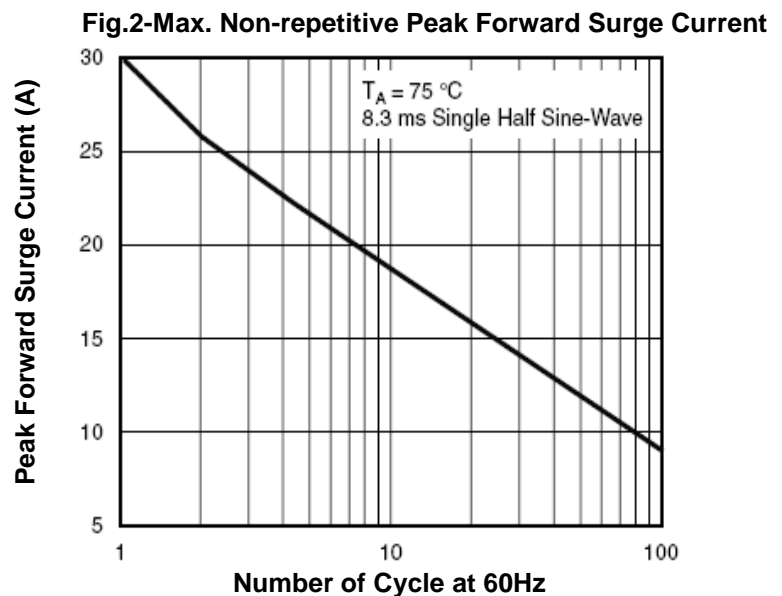
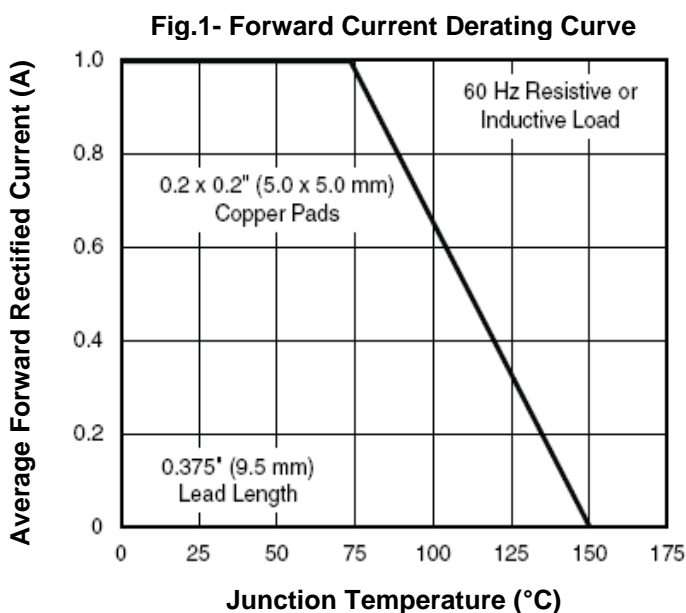
## 1N4001 - 1N4007

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

**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



# 1A Standard Rectifiers

## 1N4001 - 1N4007

Fig.3-Typical Instantaneous Forward Characteristic

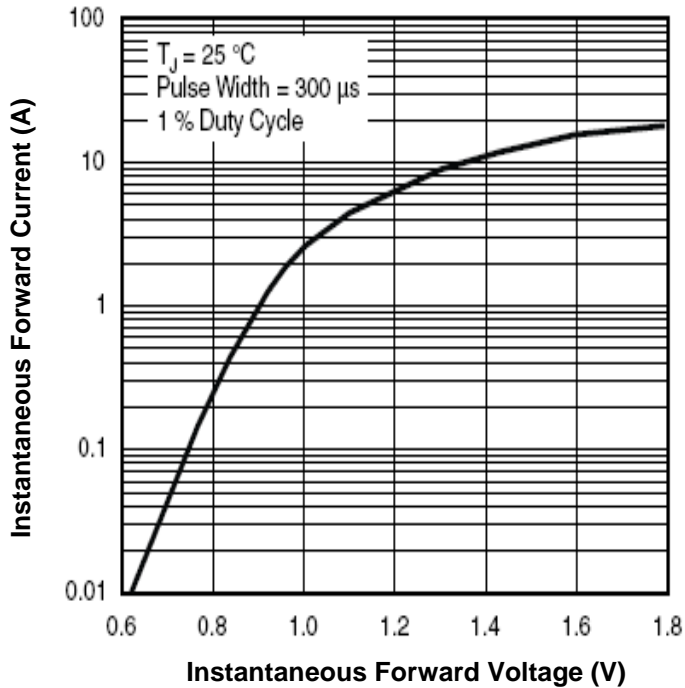


Fig.4-Typical Reverse Characteristics

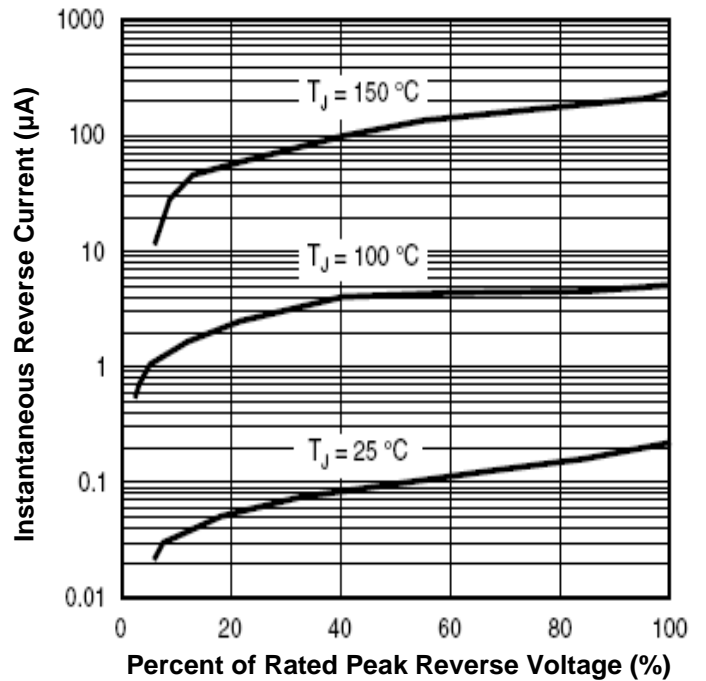
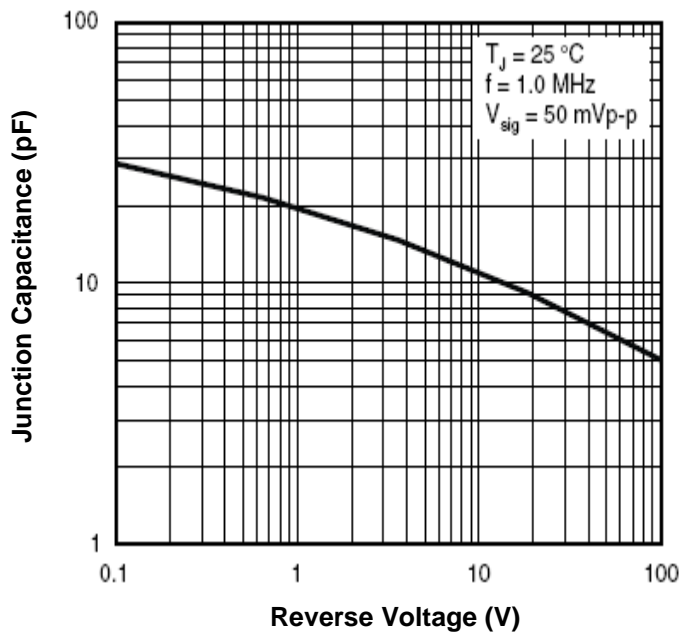
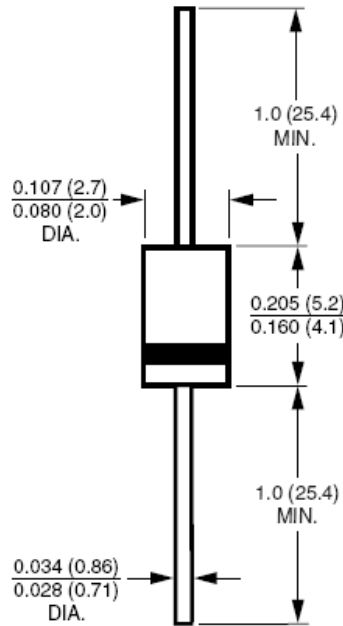


Fig.5-Typical Junction Capacitance



### 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)

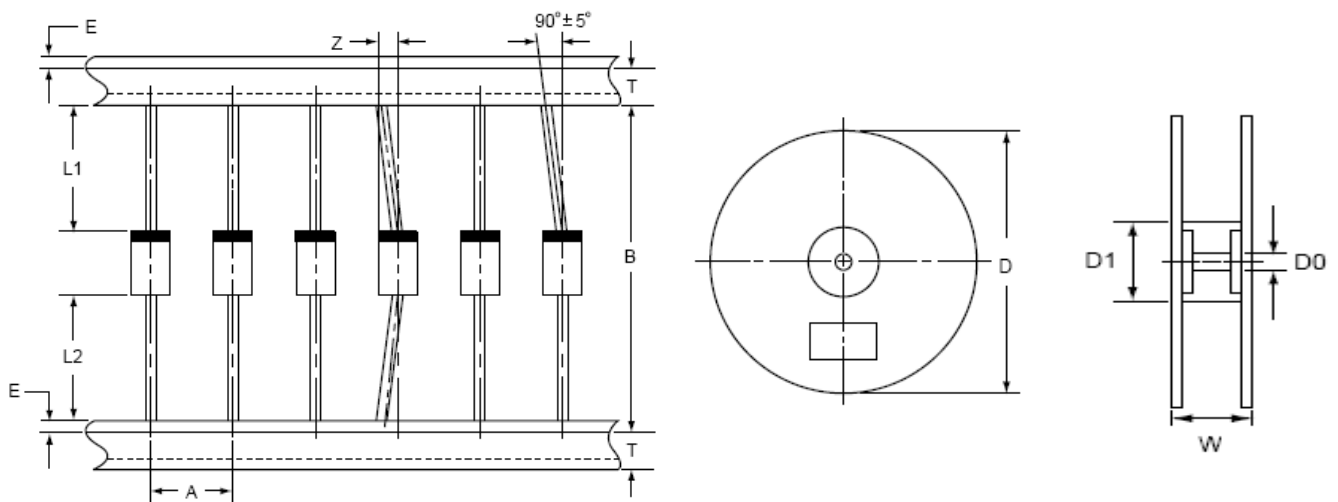
# 1A Standard Rectifiers

## 1N4001 - 1N4007

### 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.



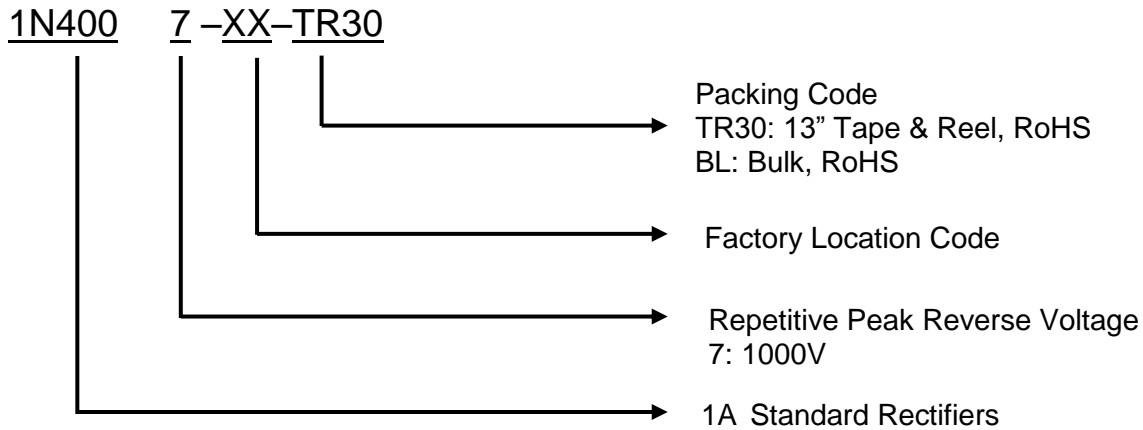
Item	Symbol	Specification (mm)	Specification (inch)
Component alignment	Z	1.2 max.	0.048 max.
Tape width	T	6.0±0.4	0.236±0.016
Exposed adhesive	E	0.8 max	0.032 max.
Body eccentricity	L1-L2	1.0 max.	0.040 max.
Reel outside diameter	D	330.0	13.0
Reel inner diameter	D1	85.7±5.0	3.375±0.197
Feed hole diameter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

# 1A Standard Rectifiers

## 1N4001 - 1N4007

### How to Order



### How to contact us

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