

**THE 1N4001-1N4007 ARE  
NOT RECOMMENDED FOR NEW DESIGNS.  
PLEASE [CONTACT US](#).**



**1N4001 – 1N4007**

**1.0A RECTIFIER**

## Features

- Diffused Junction
- High Current Capability and Low-Forward Voltage Drop
- Surge Overload Rating to 30A Peak
- Low Reverse Leakage Current
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/104/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please [contact us](#) or your local Diodes representative. <https://www.diodes.com/quality/product-definitions/>**

## Mechanical Data

- Package: DO-41
- Package Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish - Bright Tin. Plated Leads Solderable per MIL-STD-202, Method 208 <sup>Ⓔ</sup>
- Polarity: Cathode Band
- Marking: Type Number
- Weight: 0.30 grams (Approximate)

## Ordering Information (Note 3)

Part Number	Package	Packing	
		Qty.	Carrier
1N4001-T	DO-41 Plastic	5k	13" Tape & Reel
1N4002-T	DO-41 Plastic	5k	13" Tape & Reel
1N4003-T	DO-41 Plastic	5k	13" Tape & Reel
1N4004-T	DO-41 Plastic	5k	13" Tape & Reel
1N4005-T	DO-41 Plastic	5k	13" Tape & Reel
1N4006-T	DO-41 Plastic	5k	13" Tape & Reel
1N4007-T	DO-41 Plastic	5k	13" Tape & Reel

- Notes:
1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
  2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
  3. For packaging details, go to our website at <https://www.diodes.com/design/support/packaging/diodes-packaging/>.

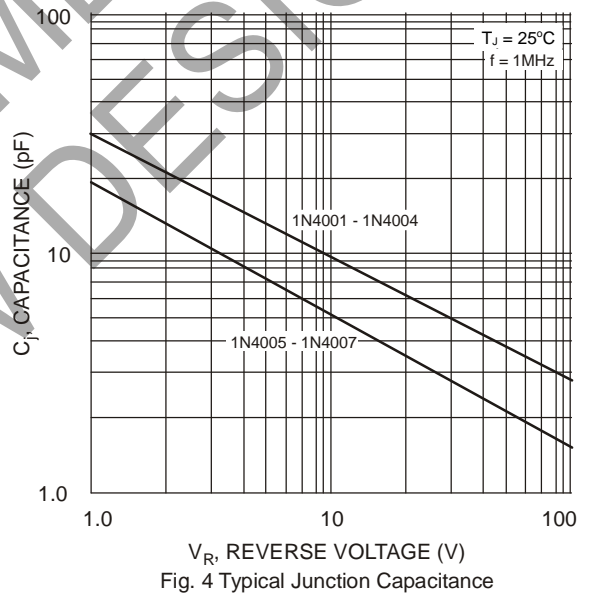
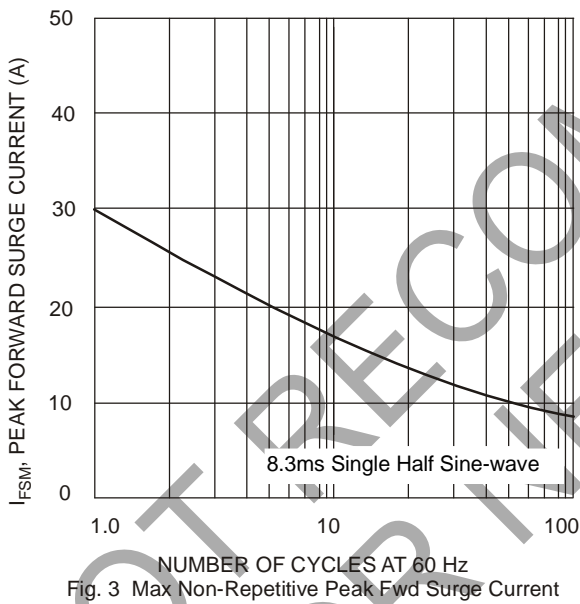
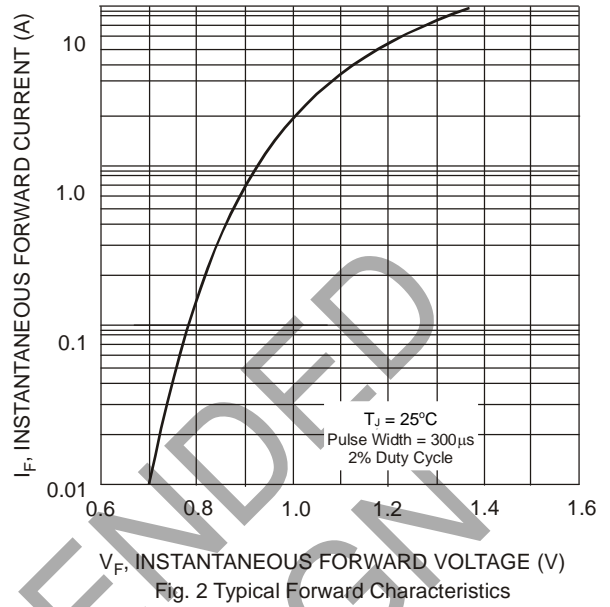
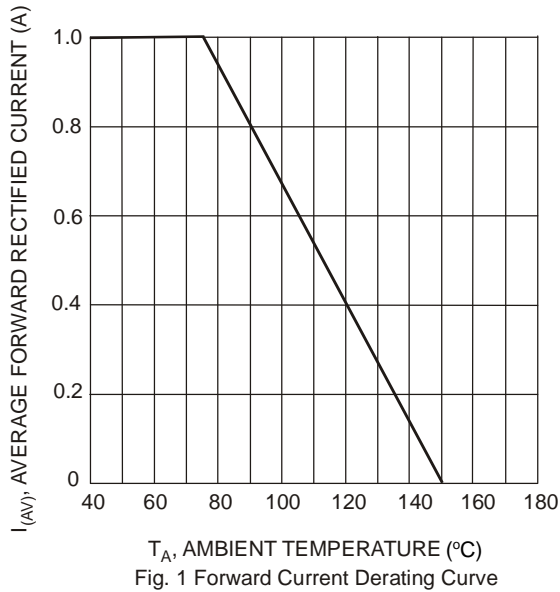
**Maximum Ratings and Electrical Characteristics** (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>								
Working Peak Reverse Voltage	V <sub>RWM</sub>	50	100	200	400	600	800	1000	V
DC Blocking Voltage	V <sub>R</sub>								
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 4) @ T <sub>A</sub> = +75°C	I <sub>O</sub>	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	30							A
Forward Voltage @ I <sub>F</sub> = 1.0A	V <sub>FM</sub>	1.0							V
Peak Reverse Current @ T <sub>A</sub> = +25°C	I <sub>RM</sub>	5.0							μA
at Rated DC Blocking Voltage @ T <sub>A</sub> = +100°C		50							
Typical Junction Capacitance (Note 5)	C <sub>J</sub>	15				8			pF
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	100							k/W
Maximum DC Blocking Voltage Temperature	T <sub>A</sub>	+150							°C
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150							°C

Notes: 4. Leads maintained at ambient temperature at a distance of 9.5mm from the case.  
5. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

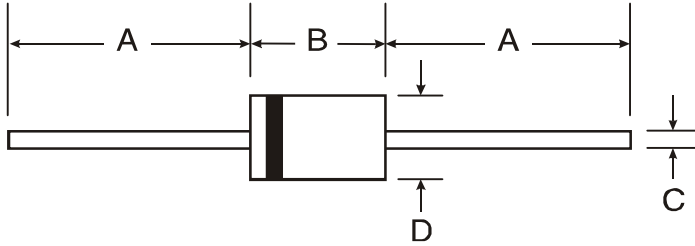
NOT RECOMMENDED FOR NEW DESIGN



**Package Outline Dimensions**

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

DO-41 (Plastic)



DO-41 (Plastic)		
Dim	Min	Max
A	25.40	-
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

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