

# 1N4001 THRU 1N4007

## GENERAL PURPOSE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts    CURRENT 1.0 Ampere

### FEATURES

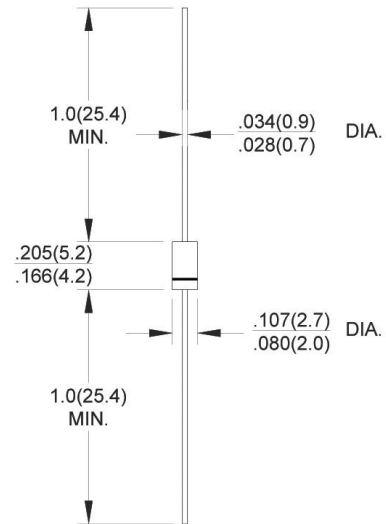
- ◆ Low forward voltage drop
- ◆ Low leakage current
- ◆ High forward surge capability
- ◆ High temperature soldering guaranteed
- ◆ 260°C/10 seconds, 0.375" (9.5mm) lead length at 5 lbs(2.3kg)

tension

### Mechanical Data

- ◆ Case: Transfer molded plastic
- ◆ Epoxy: UL94V-0 rate flame retardant
- ◆ Polarity: Color band denotes cathode end
- ◆ Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- ◆ Mounting position: Any
- ◆ Weight: 0.012ounce, 0.33 grams

### DO-41



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

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

PARAMETER	SYMBOL	1N	1N	1N	1N	1N	1N	1N	UNIT
		4001	4002	4003	4004	4005	4006	4007	
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T <sub>A</sub> =75°C	I <sub>(AV)</sub>	1.0							Amps
Peak Forward Surge Current 8.3mS single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A	V <sub>F</sub>	1.1							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	I <sub>R</sub>	T <sub>A</sub> = 25°C							uA
		T <sub>A</sub> = 125°C							
Typical Junction Capacitance (NOTE 1)	C <sub>J</sub>	30							pF
Typical Thermal Resistance (NOTE 2)	R <sub>θJA</sub>	15							°C/W
Operating and Storage Temperature Range	T <sub>i</sub> , T <sub>STG</sub>	-55 to +150							°C

Note: 1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.

2. Thermal Resistance from Junction to Ambient at .375"(9.5mm) lead length, P.C. board mounted.

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### RATING AND CHARACTERISTIC CURVES 1N4001 THRU 1N4007

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

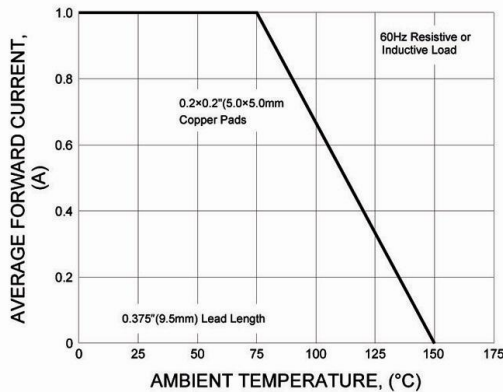


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

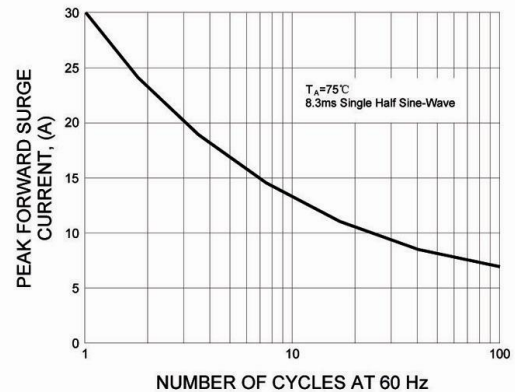


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

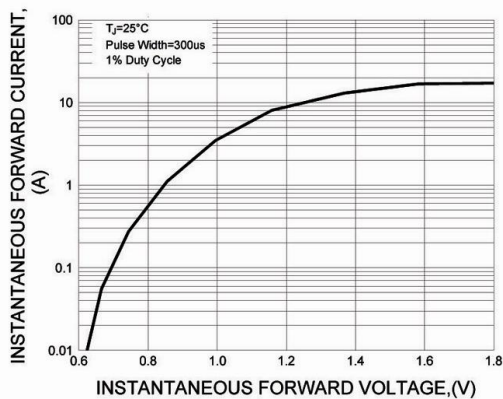


FIG.4-TYPICAL REVERSE CHARACTERISTICS

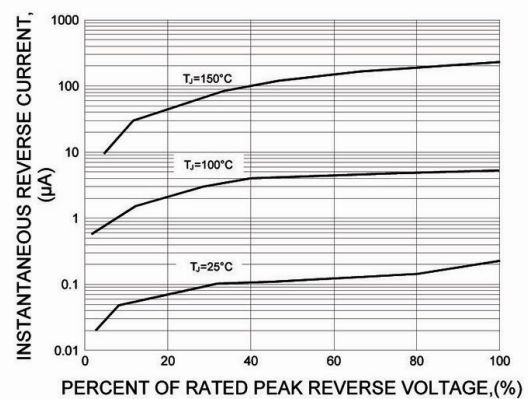
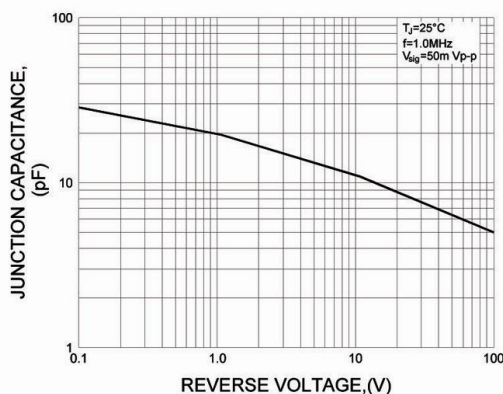


FIG.5-TYPICAL JUNCTION CAPACITANCE



Note: Specification are subject to change without notice. For more detail and update, please visit our website.