



S E M I C O N D U C T O R

# 1N4001G THRU 1N4007G

## GENERAL PURPOSE PLASTIC RECTIFIER

Reverse Voltage - 50 to 1000 Volts  
Forward Current - 1.0Ampere

### FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- 0.375"(9.5mm) lead length, 5lbs.(2.3kg).
- Component in accordance to RoHS 2011/65/EU

### MECHANICAL DATA

- Case: JEDEC DO-41 molded plastic body
- Terminals: Lead solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.012ounce, 0.33 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave 60Hz, resistive or inductive load. For capacitive load, derate by 20%.)

	Symbols	1N 4001G	1N 4002G	1N 4003G	1N 4004G	1N 4005G	1N 4006G	1N 4007G	Unis
Maximum Recurrent 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	I <sub>(AV)</sub>				1.0				Amp
Peak Forward Surge Current (8.3ms half sine-wave superimposed on rated load (JEDEC method))	I <sub>FSM</sub>				30.0				Amps
Maximum Instantaneous Forward Voltage at 1.0 A	V <sub>F</sub>			1.0					Volts
Maximum Reverse current at rated DC Blocking Voltage	I <sub>R</sub>	T <sub>A</sub> =25°C	T <sub>A</sub> =100°C		5.0				µA
					50.0				
Typical Thermal resistance (Note 2)	R <sub>θJA</sub>			65.0					°C/W
Typical Junction Capacitance (Note 1)	C <sub>J</sub>			10.0					pF
Maximum DC Blocking Voltage temperature	T <sub>A</sub>			+150					°C
Operating and Storage temperature Range	T <sub>J</sub> T <sub>STG</sub>			-55 to +150					°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V DC.

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

## RATINGS AND CHARACTERISTIC CURVES 1N4001G THRU 1N4007G

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FIG.1-FORWARD CURRENT DERATING CURVE

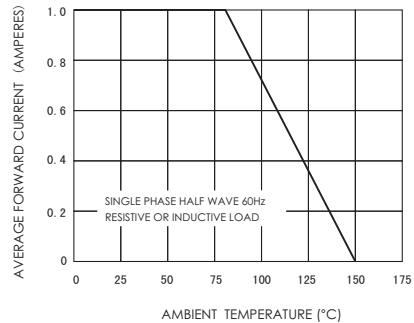


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

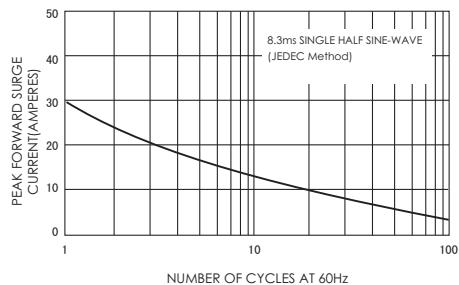


FIG.5-TYPICAL JUNCTION CAPACITANCE

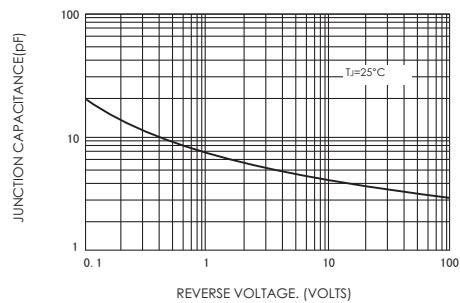


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

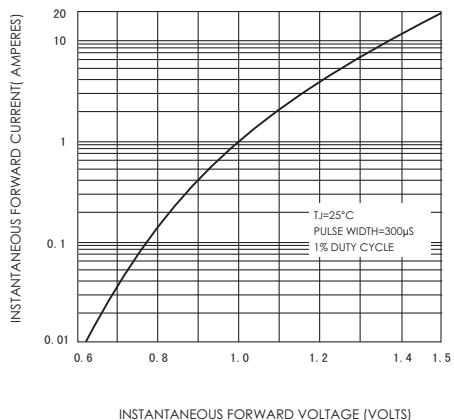


FIG.4-TYPICAL REVERSE CHARACTERISTICS

