

# 1N4007G-1

## GLASS PASSIVATED JUNCTION RECTIFIER

VOLTAGE: 1000V

CURRENT: 1.0A



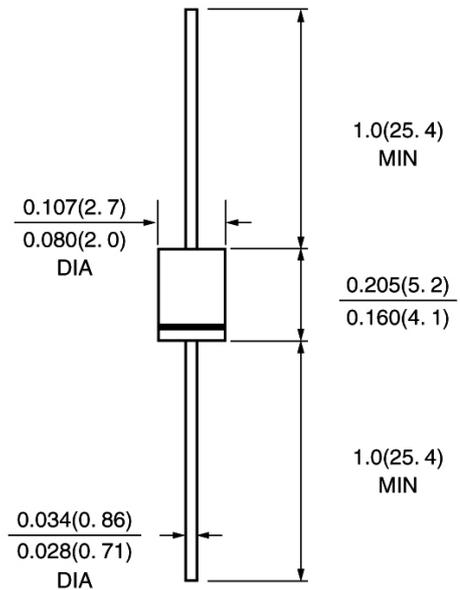
### FEATURE

Molded case feature for auto insertion  
High current capability  
Low leakage current  
High surge capability  
High temperature soldering guaranteed  
250°C /10sec/0.375" lead length at 5 lbs tension  
Glass Passivated chip

### MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C  
Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy  
Polarity: color band denotes cathode  
Mounting position: any

### DO - 41\DO - 204AL



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%)

	SYMBOL	1N4007G-1	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	1000	V
Maximum RMS Voltage	V <sub>rms</sub>	700	V
Maximum DC blocking Voltage	V <sub>dc</sub>	1000	V
Maximum Average Forward Rectified Current 3/8" lead length at T <sub>a</sub> =75°C	I <sub>f(av)</sub>	1.0	A
Peak Forward Surge Current 8.3ms single Half sine-wave superimposed on rated load	I <sub>fsm</sub>	30.0	A
Maximum Instantaneous Forward Voltage at rated forward current	V <sub>f</sub>	1.1	V
Maximum full load reverse current full cycle at T <sub>L</sub> =75°C	I <sub>r(av)</sub>	30.0	μA
Maximum DC Reverse Current at rated DC blocking voltage	I <sub>r</sub>	5.0 50.0	μA
Reverse Recovery Time Range (Note 1)	T <sub>rr</sub>	900~1300	nS
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	15.0	pF
Typical Thermal Resistance (Note 3)	R(ja)	50.0	°C/W
Storage and Operation Junction Temperature	T <sub>stg</sub> , T <sub>j</sub>	-55 to +150	°C

#### Note:

1. Reverse Recovery Condition I<sub>f</sub> =0.5A, I<sub>r</sub> =1.0A, I<sub>rr</sub> =0.25A
2. Measured at 1.0 MHz and applied voltage of 4.0V<sub>dc</sub>
3. Thermal Resistance from Junction to Ambient at 0.375" lead length, P.C. Board Mounted

Fig. 1 – Forward Current Derating Curve

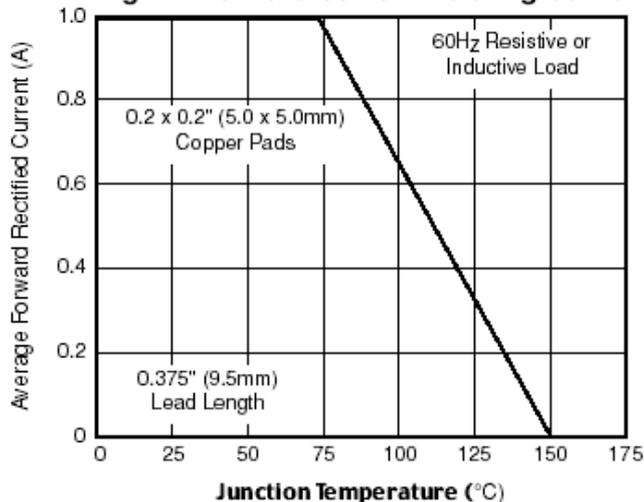


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

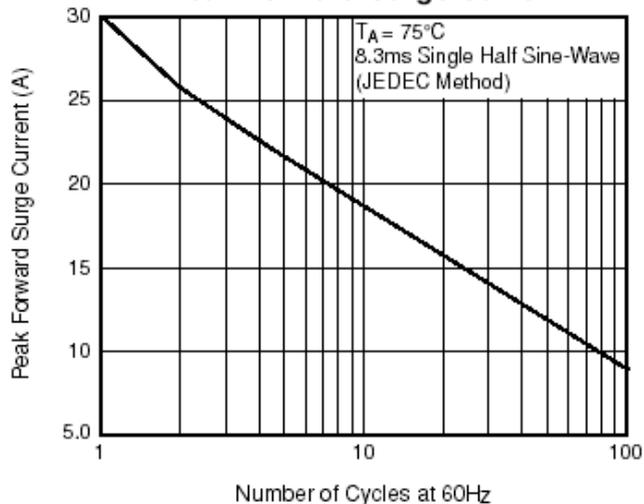


Fig. 3 – Typical Instantaneous Forward Characteristics

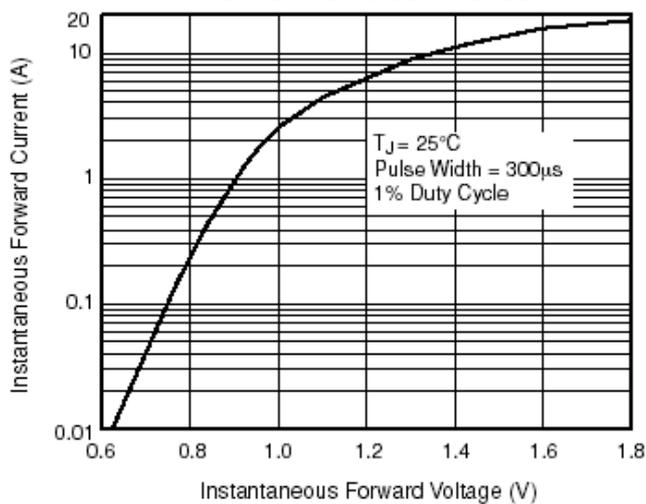


Fig. 4 – Typical Reverse Characteristics

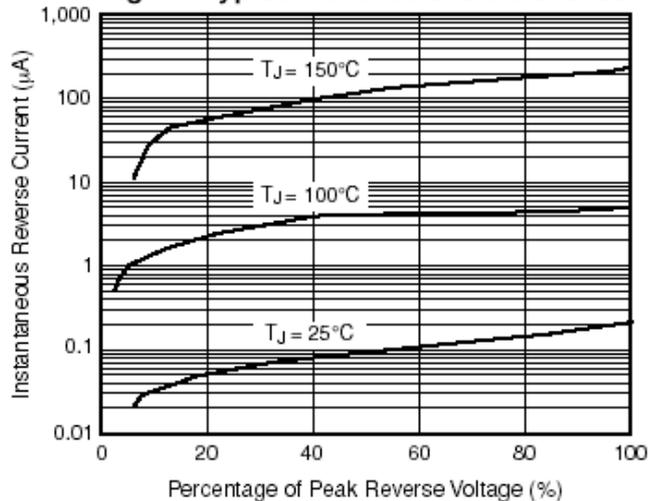


Fig. 5 – Typical Junction Capacitance

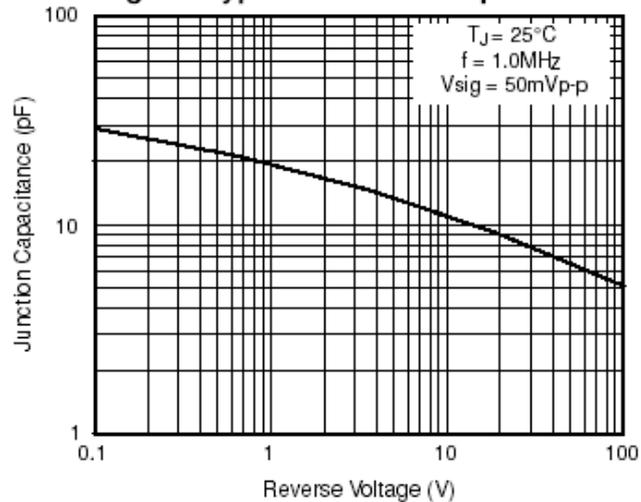


Fig. 6 – Typical Transient Thermal Impedance

