

1N4007G-1

GLASS PASSIVATED JUNCTION RECTIFIER

VOLTAGE: 1000V

CURRENT: 1.0A



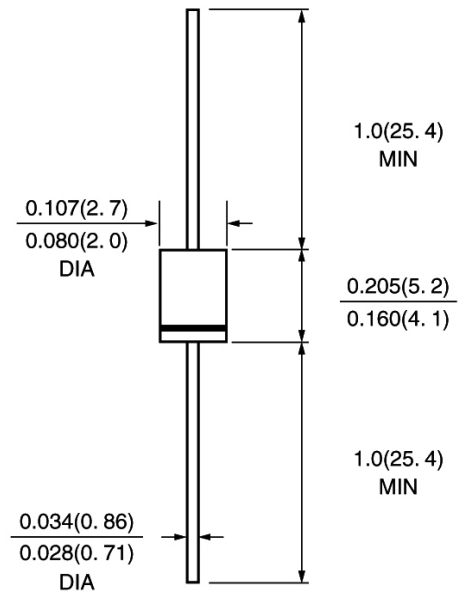
FEATURE

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

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Dimensions in inches and (millimeters)

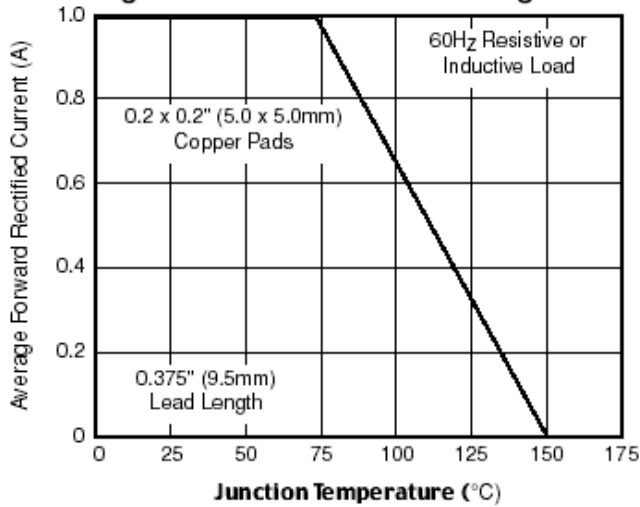
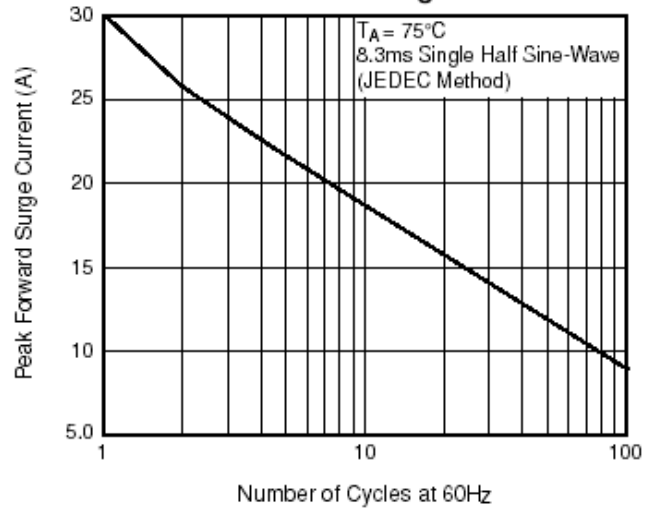
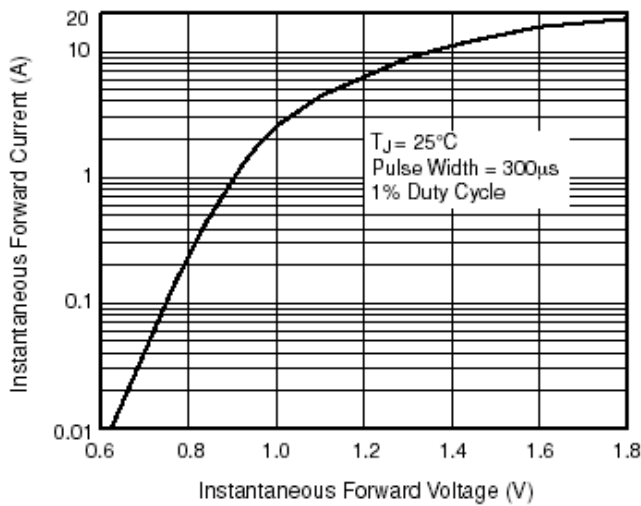
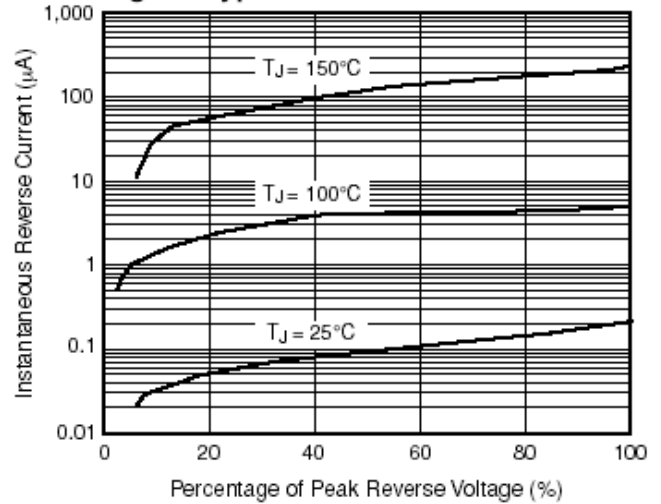
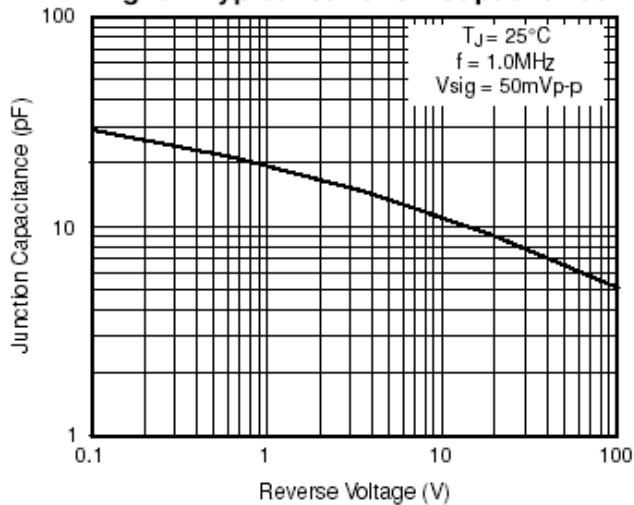
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(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 _{rrm}	1000	V
Maximum RMS Voltage	V _{rms}	700	V
Maximum DC blocking Voltage	V _{dc}	1000	V
Maximum Average Forward Rectified Current 3/8" lead length at T _a =75°C	I _{f(av)}	1.0	A
Peak Forward Surge Current 8.3ms single Half sine-wave superimposed on rated load	I _{fsm}	30.0	A
Maximum Instantaneous Forward Voltage at rated forward current	V _f	1.1	V
Maximum full load reverse current full cycle at T _L =75°C	I _{r(av)}	30.0	μA
Maximum DC Reverse Current at rated DC blocking voltage T _a =25°C T _a =100°C	I _r	5.0 50.0	μA
Reverse Recovery Time Range (Note 1)	T _{rr}	900~1300	nS
Typical Junction Capacitance (Note 2)	C _j	15.0	pF
Typical Thermal Resistance (Note 3)	R(ja)	50.0	°C /W
Storage and Operation Junction Temperature	T _{stg} , T _j	-55 to +150	°C

Note:

1. Reverse Recovery Condition I_f =0.5A, I_r =1.0A, I_{rr} =0.25A
2. Measured at 1.0 MHz and applied voltage of 4.0V_{dc}
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
