1N4001E THRU 1N4007E

GENERAL PURPOSE PLASTIC RECTIFIER

VOLTAGE:50 TO 1000V CURRENT: 1.0A

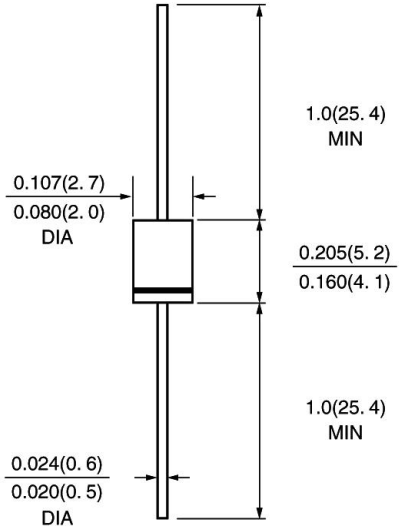
FEATURE

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

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

A-405



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	1N4001E	1N4002E	1N4003E	1N4004E	1N4005E	1N4006E	1N4007E	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	Vrms	35	70	140	280	420	560	700	V
Maximum DC blocking Voltage	Vdc	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 3/8”lead length at Ta =75°C	If(av)	1.0							A
Peak Forward Surge Current 8.3ms single Half sine-wave superimposed on rated load	Ifsm	30.0							A
Maximum Instantaneous Forward Voltage at rated forward current	Vf	1.1							V
Maximum full load reverse current full cycle at T_L =75°C	Ir(av)	30.0							µA
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =100°C	Ir	5.0 50.0							µA µA
Typical Junction Capacitance (Note 1)	Cj	15.0							pF
Typical Thermal Resistance (Note 2)	R(ja)	50.0							°C/W
Storage and Operation Junction Temperature	Tstg	-50 to +150							°C

Note:

1. Measured at 1.0 MHz and applied voltage of 4.0Vdc
2. Thermal Resistance from Junction to Ambient at 0.375”lead length, P.C. Board Mounted

Fig. 1 – Forward Current Derating Curve

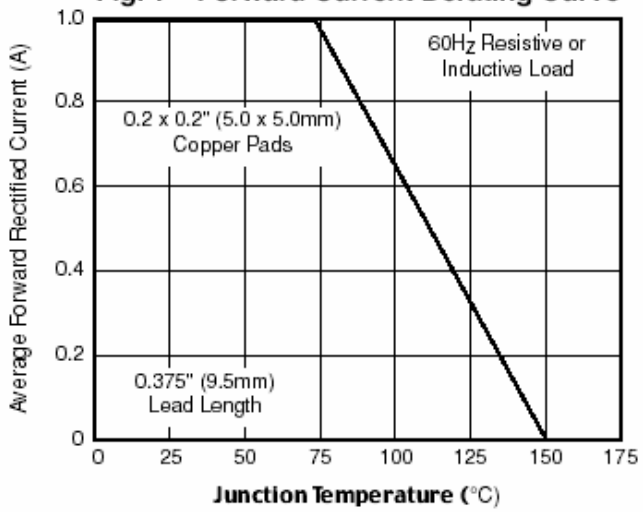


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

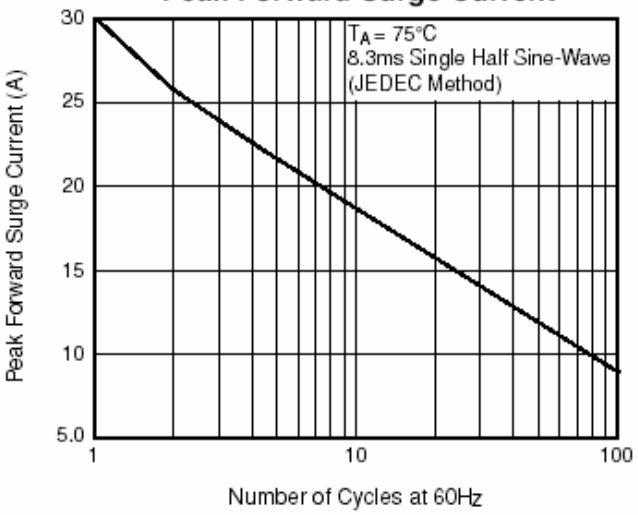


Fig. 3 – Typical Instantaneous Forward Characteristics

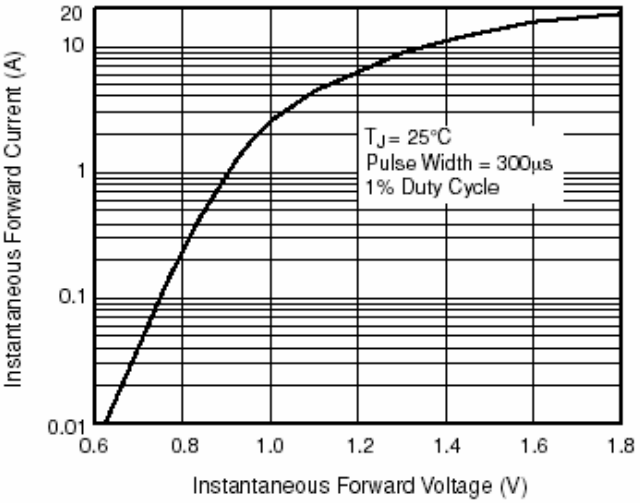


Fig. 4 – Typical Reverse Characteristics

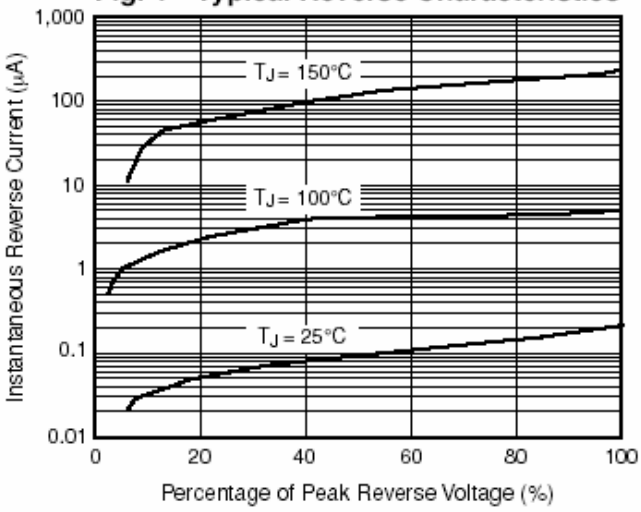


Fig. 5 – Typical Junction Capacitance

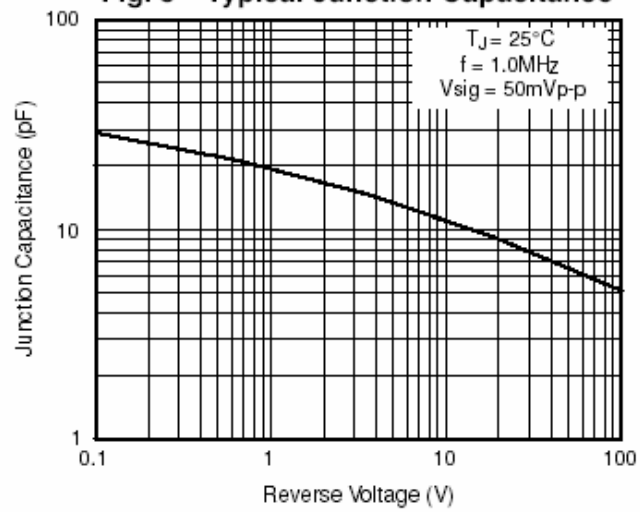


Fig. 6 – Typical Transient Thermal Impedance