1N4001-E THRU 1N4007Q-E

GENERAL PURPOSE PLASTIC RECTIFIER

VOLTAGE: 50 to 1200V **CURRENT: 1.0A**

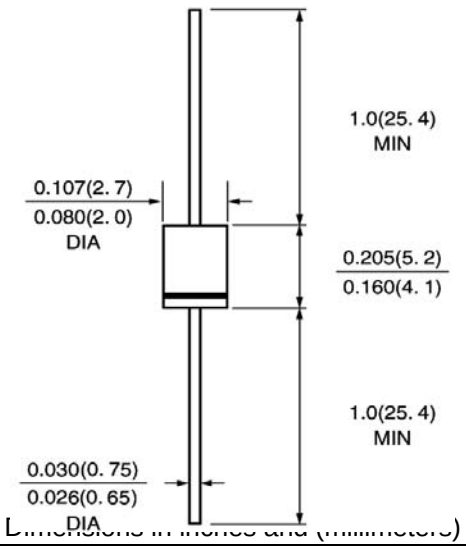
FEATURE

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
Halogen Free

MECHANICAL DATA

Terminal: Plated axial leads solderable per
MIL-STD 202E, method 208C
Case: Molded with UL-94 Class V-0 recognized Halogen
Free 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)

	Symbol	1N4001-E	1N4002-E	1N4003-E	1N4004-E	1N4005-E	1N4006-E	1N4007-E	1N4007N-E	1N4007Q-E	units
* Maximum Recurrent Peak Reverse Voltage	Vrrm	50	100	200	400	600	800	1000	1100	1200	V
* Maximum RMS Voltage	Vrms	35	70	140	280	420	560	700	770	840	V
* Maximum DC blocking Voltage	Vdc	50	100	200	400	600	800	1000	1100	1200	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
Typical Junction Capacitance (Note 1)	Cj	15.0									pF
Typical Thermal Resistance (Note 2)	Rth(ja)	50.0									°C /W
Storage and Operation Junction Temperature	Tstg, Tj	-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
* JEDEC Registered value

RATINGS AND CHARACTERISTIC CURVES 1N4001-E THRU 1N4007Q-E

FIG.1 - FORWARD CURRENT DERATING CURVE

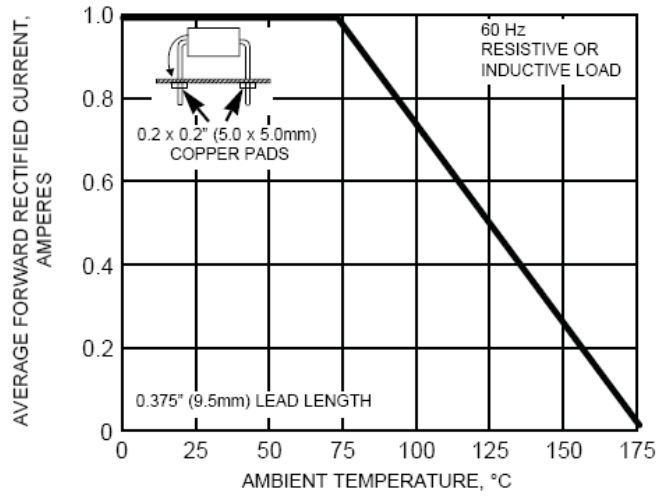


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

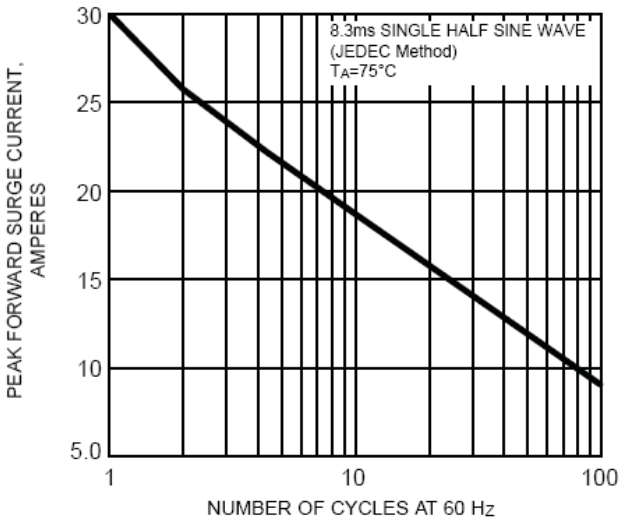


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

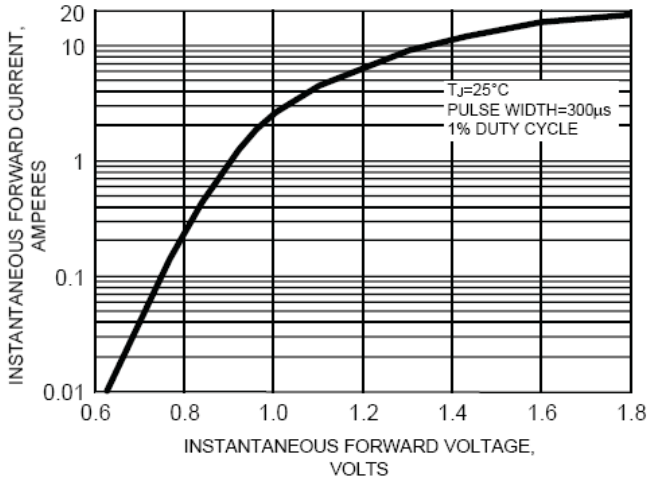


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

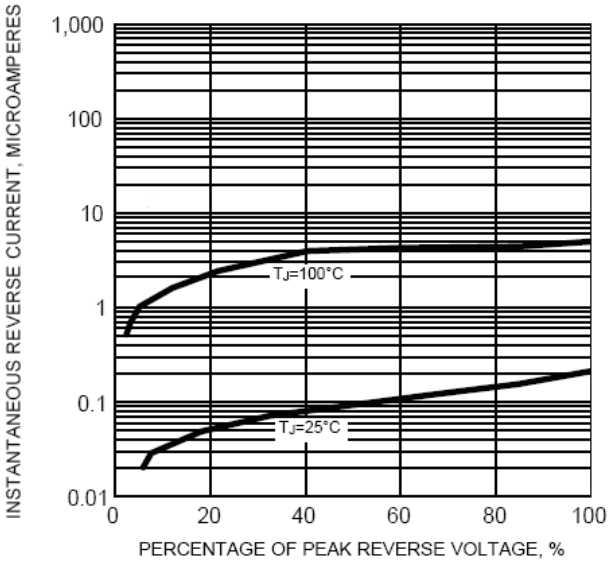


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

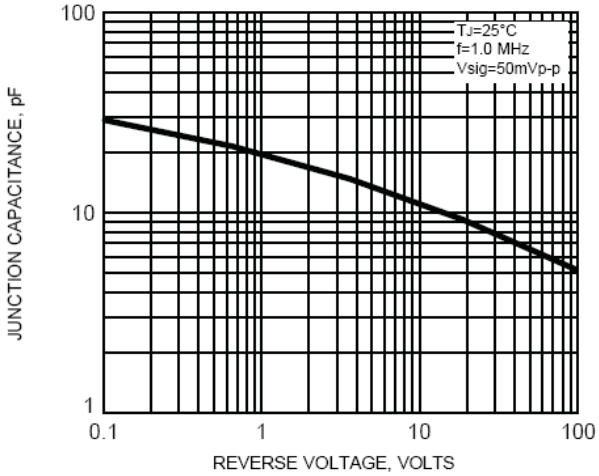


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE