

1N4001 THRU 1N4007Q

GENERAL PURPOSE PLASTIC RECTIFIER

VOLTAGE: 50 to 1200V

CURRENT: 1.0A



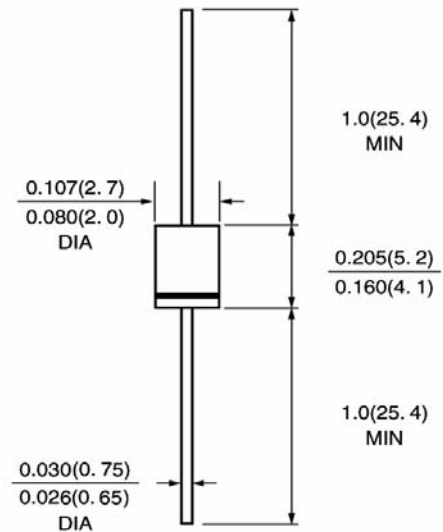
FEATURE

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

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)

	Symbol	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	1N4007N	1N4007Q	units
* Maximum Recurrent Peak Reverse Voltage	V _{rrm}	50	100	200	400	600	800	1000	1100	1200	V
* Maximum RMS Voltage	V _{rms}	35	70	140	280	420	560	700	770	840	V
* Maximum DC blocking Voltage	V _{dc}	50	100	200	400	600	800	1000	1100	1200	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	I _r	5.0									μA
		50.0									μA
Typical Junction Capacitance (Note 1)	C _j	15.0									pF
Typical Thermal Resistance (Note 2)	R _{th(ja)}	50.0									°C /W
Storage and Operation Junction Temperature	T _{stg} , T _j	-50 to +150									°C

Note:

- Measured at 1.0 MHz and applied voltage of 4.0Vdc
 - Thermal Resistance from Junction to Ambient at 0.375"lead length, P.C. Board Mounted
- * JEDEC Registered value

RATINGS AND CHARACTERISTIC CURVES 1N4001 THRU 1N4007G

FIG. 1 - FORWARD CURRENT DERATING CURVE

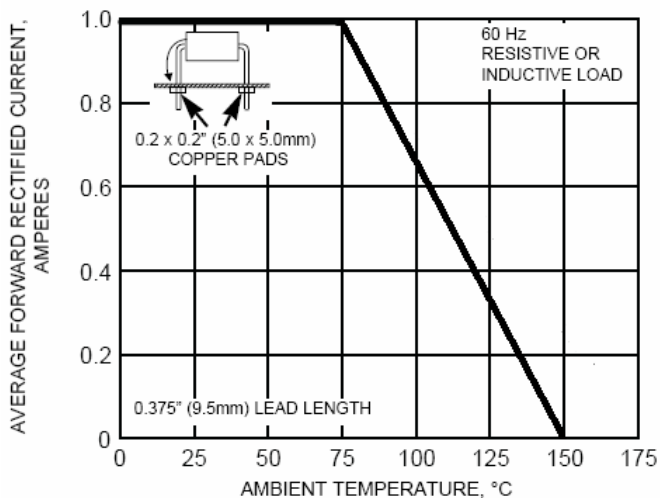


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

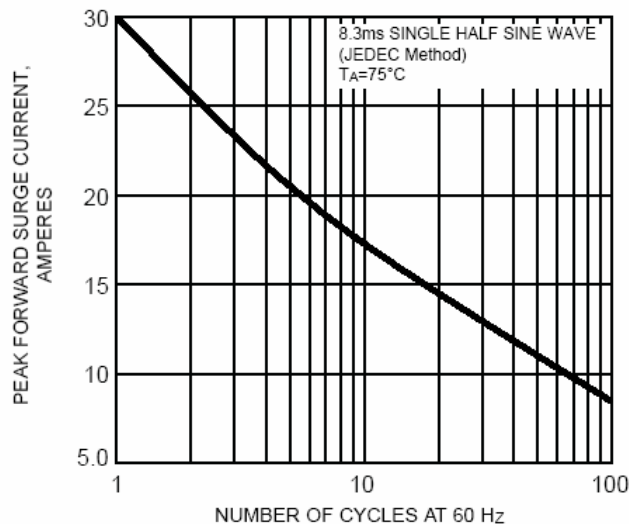


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

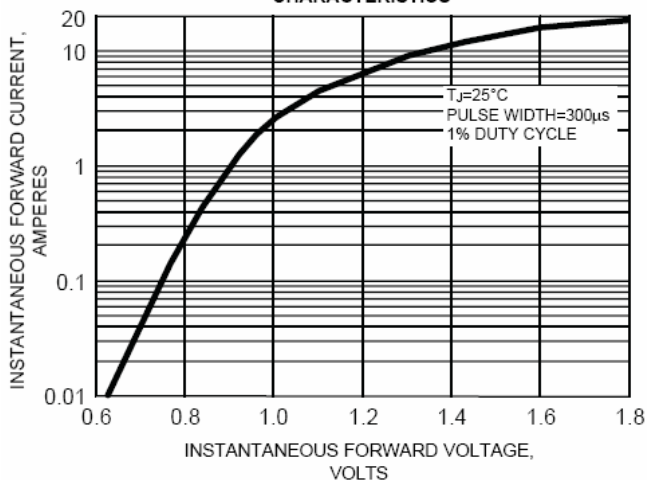


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

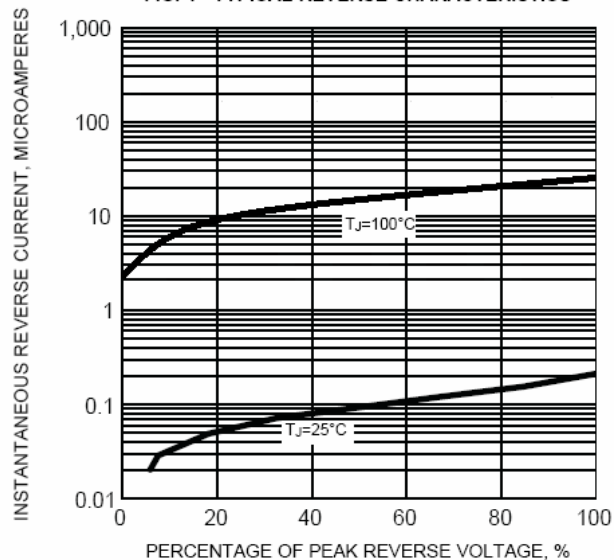


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

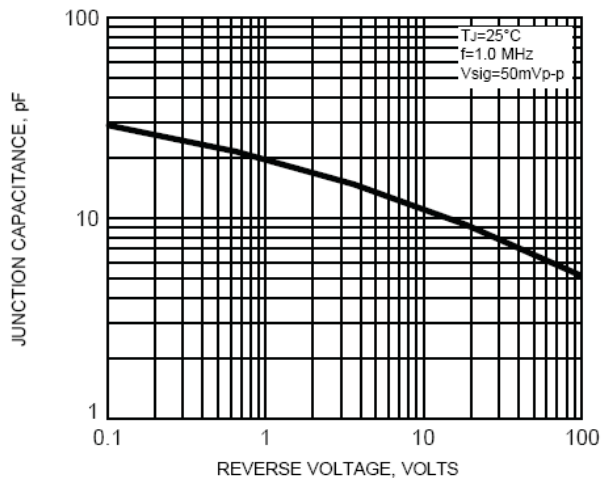


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

