

1N4001 THRU 1N4007

GENERAL PURPOSE PLASTIC RECTIFIER

VOLTAGE: 50 TO 1000V

CURRENT: 1.0A



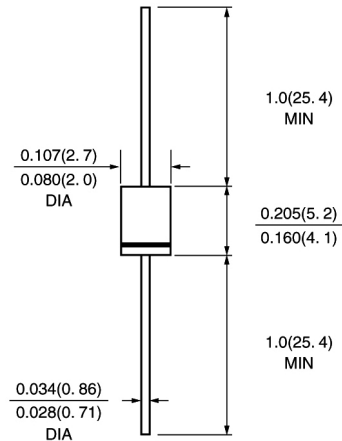
FEATURE

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

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	1N 4001	1N 4002	1N 4003	1N 4004	1N 4005	1N 4006	1N 4007	units
* Maximum Recurrent Peak Reverse Voltage	V _{rrm}	50	100	200	400	600	800	1000	V
* Maximum RMS Voltage	V _{rms}	35	70	140	280	420	560	700	V
* Maximum DC blocking Voltage	V _{dc}	50	100	200	400	600	800	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 μA
Typical Junction Capacitance (Note 1)	C _j	15.0							pF
Typical Thermal Resistance (Note 2)	R(ja)	50.0							°C/W
Storage and Operation Junction Temperature	T _{stg}	-50 to +150							°C

Note:

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

Fig. 1 – Forward Current Derating Curve

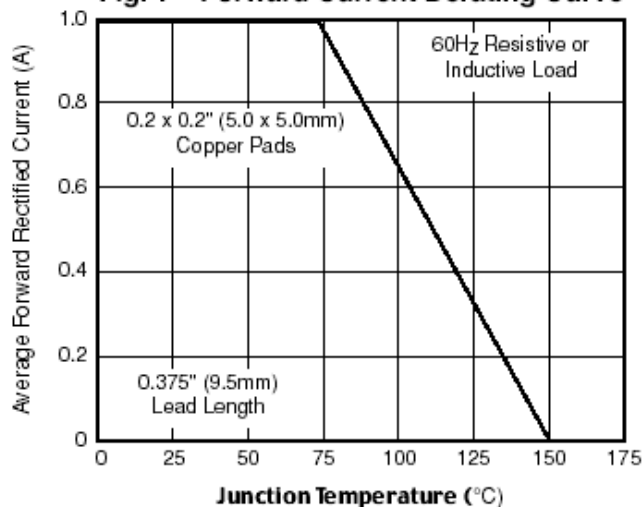


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

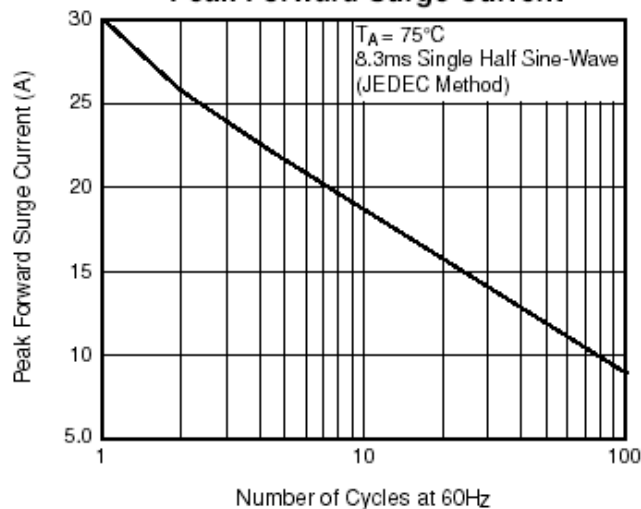


Fig. 3 – Typical Instantaneous Forward Characteristics

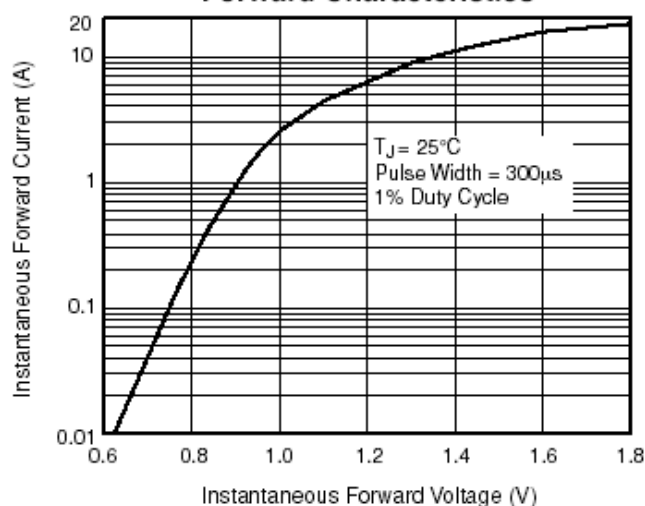


Fig. 4 – Typical Reverse Characteristics

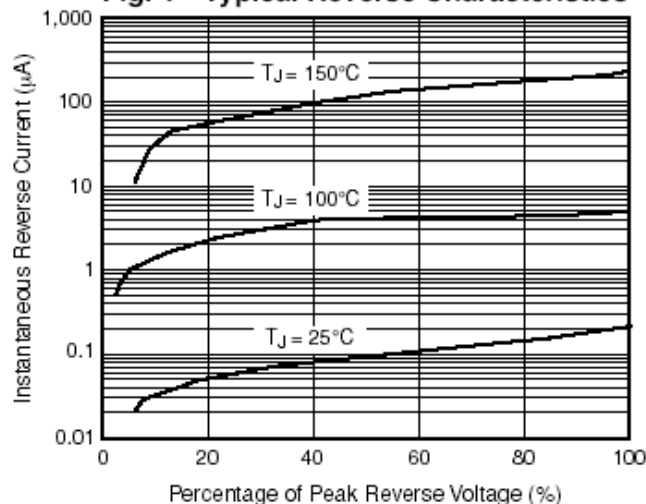


Fig. 5 – Typical Junction Capacitance

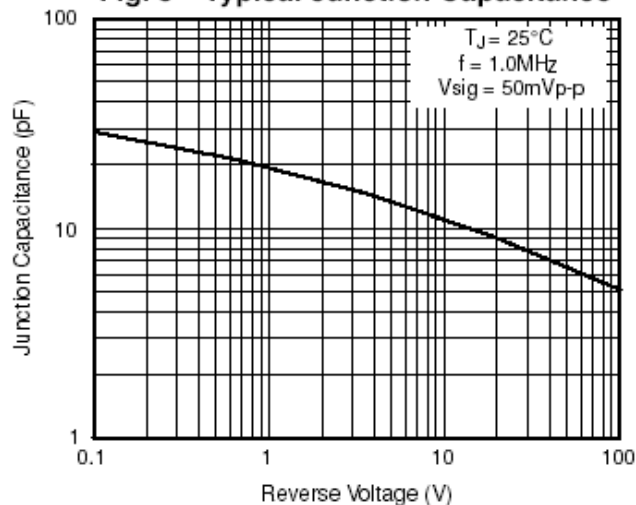


Fig. 6 – Typical Transient Thermal Impedance

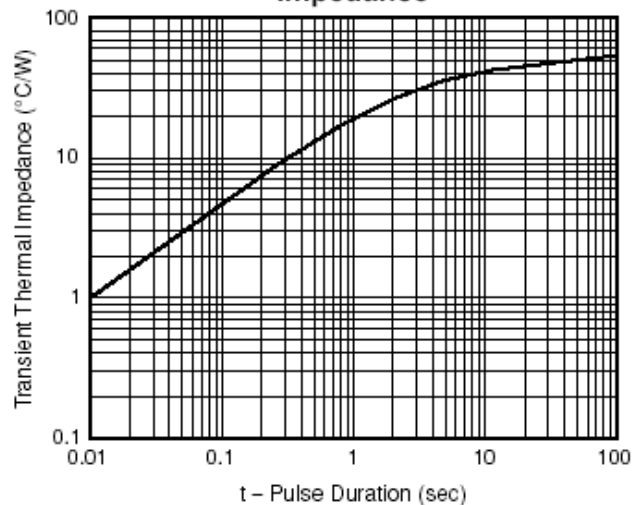


Fig. 7 — Maximum Non-Repetitive Peak Forward Surge Current
(0.5ms~10ms)

