

1N4001GP THRU 1N4007GP

SINTERED GLASS JUNCTION PLASTIC RECTIFIER

VOLTAGE: 50 TO 1000V

CURRENT: 1.0A



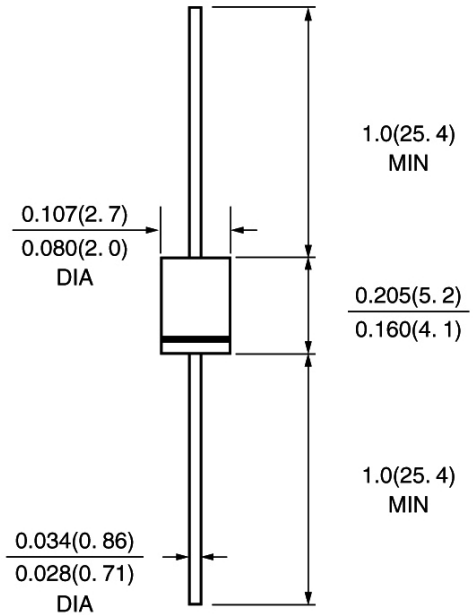
FEATURE

High temperature metallurgically bonded construction
Sintered glass cavity free junction
Capability of meeting environmental standard of MIL-S-19500
High temperature soldering guaranteed
350°C/10sec/0.375"lead length at 5 lbs tension
Operate at Ta =55°C with no thermal run away
Typical Ir<0.1µA

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	1N4001 GP	1N4002 GP	1N4003 GP	1N4004 GP	1N4005 GP	1N4006 GP	1N4007 GP	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 1.0A	Vf	1.1							V
* Maximum full load reverse current full cycle Average at 75°C	Ir(av)	30.0							µA
* Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	Ir	5.0 50.0							µA µA
Typical Reverse Recovery Time (Note 1)	Trr	2.0							µS
Typical Junction Capacitance (Note 2)	Cj	8.0							pF
Typical Thermal Resistance (Note 3)	R(ja)	45.0							°C/W
* Storage and Operating Junction Temperature	Tstg, Tj	-65 to +175							°C

Note:

- Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
 - Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
 - Thermal Resistance from Junction to Ambient at 3/8"lead length, P.C. Board Mounted
- * JEDEC registered value

RATINGS AND CHARACTERISTIC CURVES 1N4001GP THRU 1N4007GP

FIG. 1 - FORWARD CURRENT DERATING CURVE

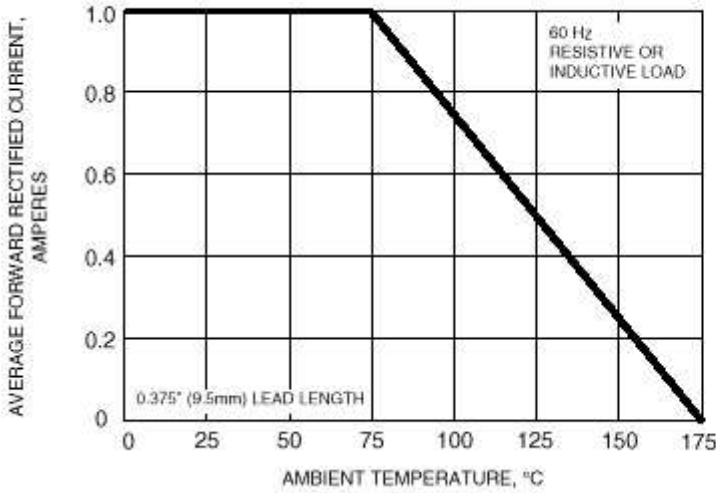


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

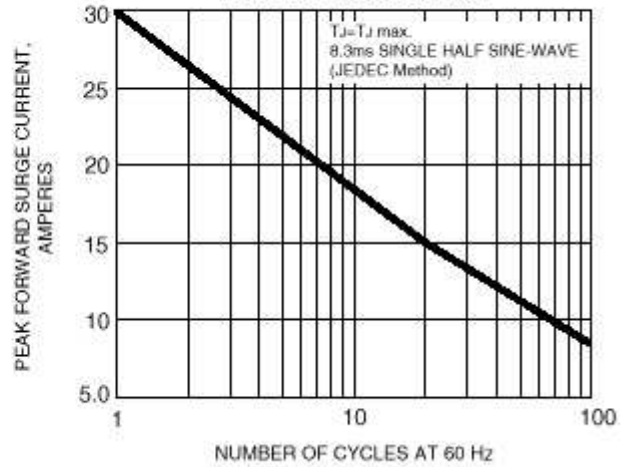


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

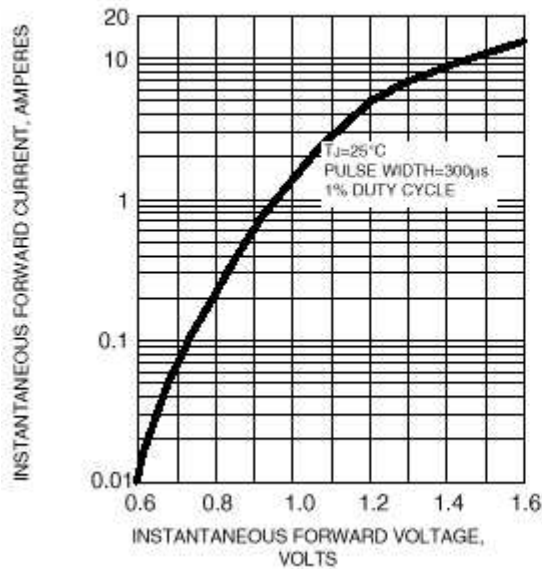


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

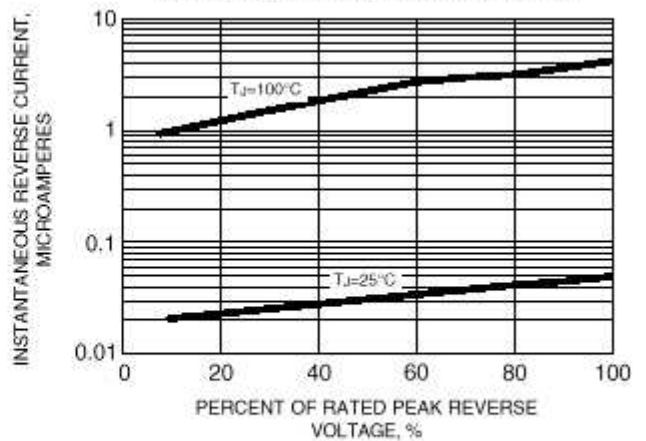


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

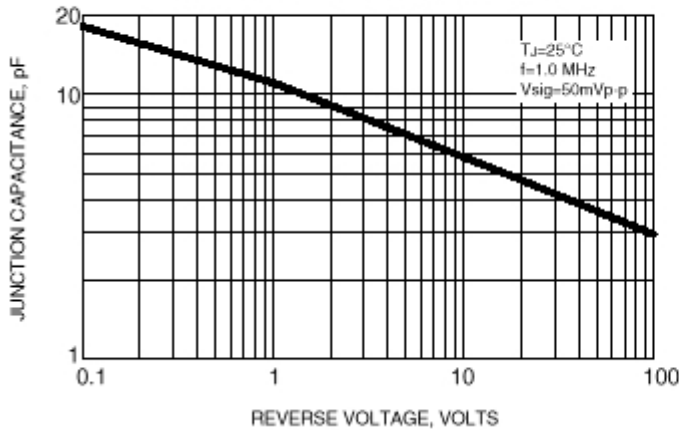


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

