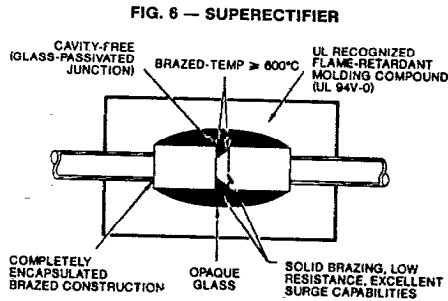
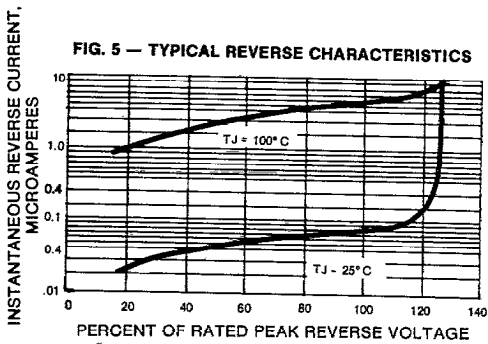
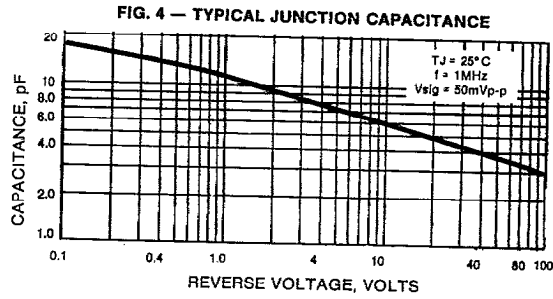
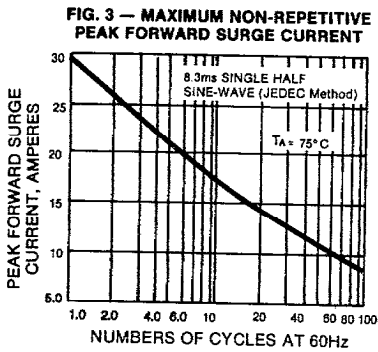
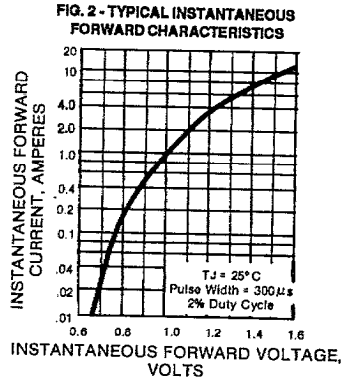
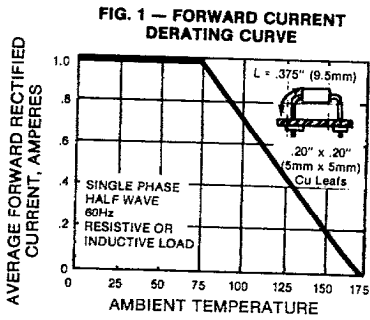


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**RATINGS AND CHARACTERISTIC CURVES 1N4001GP THRU 1N4007GP**



# 1N4001GP THRU 1N4007GP

## MINIATURE GLASS PASSIVATED JUNCTION PLASTIC RECTIFIER

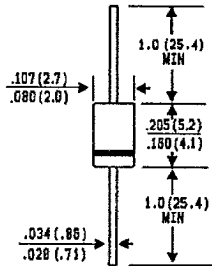
Voltage - 50 to 1000 Volts Current -1.0 Ampere

### FEATURES

- ◆ High temperature metallurgically bonded constructed rectifiers
- ◆ Plastic package
- ◆ has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Glass passivated cavity-free junction in D0-41 package
- ◆ 1.0 Ampere operation at  $T_A = 75^\circ\text{C}$  with no thermal runaway
- ◆ Typical  $I_R$  less than  $0.1 \mu\text{A}$
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ High temperature soldering guaranteed:  $350^\circ\text{C}/10$  seconds/.375", (9.5mm) lead length at 5 lbs., (2.3kg) tension

**PATENTED\***

DO-41



Dimensions in inches and (millimeters)

\*Glass-plastic encapsulation technique is covered by Patent No. 3,996,602 of 1976 and brazed-lead assembly to Patent No. 3,930,306 of 1976

**SUPERRECTIFIER**®

### MECHANICAL DATA

**Case:** JEDEC DO-41 Molded plastic over glass  
**Terminals:** Axial leads, solderable per MIL-STD-202, Method 208  
**Polarity:** Color band denotes cathode  
**Mounting Position:** Any  
**Weight:** 0.012 ounce, 0.3 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

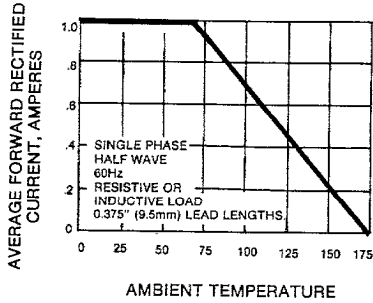
Ratings at  $25^\circ\text{C}$  ambient temperature unless otherwise specified. Resistive or inductive load. For capacitive load, derate current by 20%.

	SYMBOLS	1N	1N	1N	1N	1N	1N	UNITS
		4001GP	4002GP	4003GP	4004GP	4005GP	4006GP	
*Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	1000	Volts
*Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700
*Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000
*Maximum Average Forward Rectified Current .375", (9.5mm) Lead Lengths at $T_A = 75^\circ\text{C}$	$I_{(AV)}$	1.0						Amps
*Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30.0						Amps
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	1.1						Volts
*Maximum Full Load Reverse Current, Full Cycle Average .375", (9.5mm) Lead Length $T_A = 75^\circ\text{C}$	$I_{R(AV)}$	30.0						$\mu\text{A}$
*Maximum DC Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 125^\circ\text{C}$	$I_R$	5.0						$\mu\text{A}$
Typical Reverse Recovery Time (NOTE 1)	$T_{RR}$	2.0						$\mu\text{S}$
Typical Junction Capacitance (NOTE 2)	$C_J$	8.0						pf
Typical Thermal Resistance (NOTE 3)	$R_{\theta JA}$	45.0						$^\circ\text{C}/\text{W}$
*Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +175						$^\circ\text{C}$

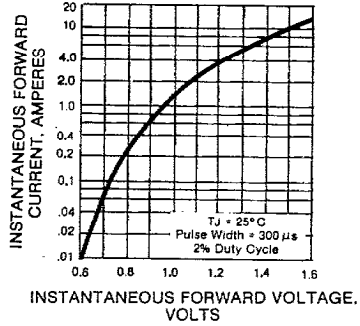
NOTES: 1. Reverse Recovery Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RT} = 0.25\text{A}$ .  
 2. Measured at 1.0 MHz and applied reverse voltage of  $4.0 V_{DC}$ .  
 3. Thermal Resistance from Junction to Ambient at .375" (9.5mm) Lead Lengths, P.C. Board Mounted.  
 \* JEDEC Registered Values

**RATINGS AND CHARACTERISTIC CURVES  
1N3611GP THRU 1N3614GP AND 1N3957GP**

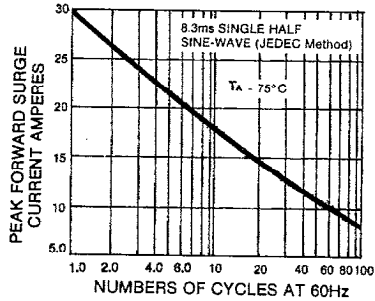
**FIG. 1 — FORWARD CURRENT DERATING CURVE**



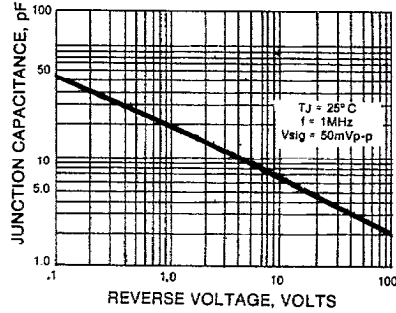
**FIG. 2 — TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



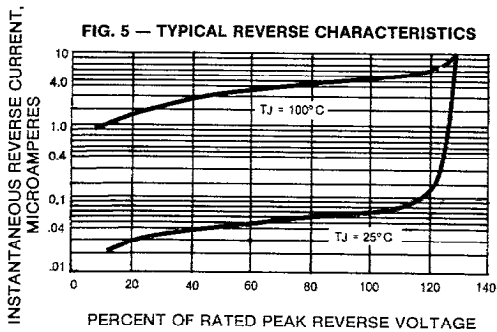
**FIG. 3 — MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG. 4 — TYPICAL JUNCTION CAPACITANCE**



**FIG. 5 — TYPICAL REVERSE CHARACTERISTICS**



**FIG. 6 — SUPERRECTIFIER**

