



# GP1001 THRU GP1007

## 10.0 AMPS. Glass Passivated Rectifiers



Voltage Range  
50 to 1000 Volts  
Current  
10.0 Amperes

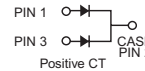
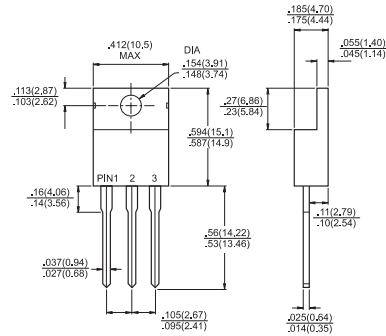
### Features

- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability

### Mechanical Data

- ✧ Cases: TO-220 molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Terminals: Leads solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: As marked
- ✧ High temperature soldering guaranteed: 260°C/10 seconds .16", (4.06mm) from case.
- ✧ Weight: 2.24 grams

### TO-220



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

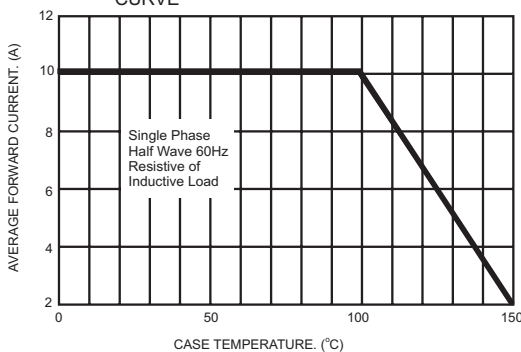
Type Number	Symbol	GP 1001	GP 1002	GP 1003	GP 1004	GP 1005	GP 1006	GP 1007	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length @ $T_C = 100^\circ\text{C}$	$I_{(AV)}$	10.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	125							A
Maximum Instantaneous Forward Voltage @ 5.0A	$V_F$	1.1							V
Maximum DC Reverse Current @ $T_C = 25^\circ\text{C}$ at Rated DC Blocking Voltage	$I_R$	5.0							uA
Typical Junction Capacitance ( Note 1)	$C_j$	30							pF
Typical Thermal Resistance (Note 2)	$R\theta_{JC}$	3.0							°C/W
Operating and Storage Temperature Range	$T_J, T_{STG}$	- 65 to + 150							°C

Notes: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.

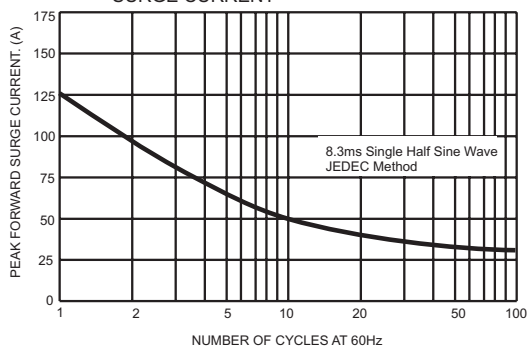
2. Thermal Resistance from Junction to Case Mounted on Heatsink size 2" x 3" x 0.25" Al-Plate

## RATINGS AND CHARACTERISTIC CURVES (GP1001 THRU GP1007)

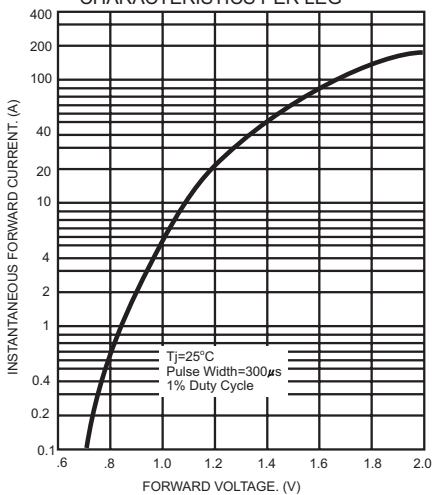
**FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE**



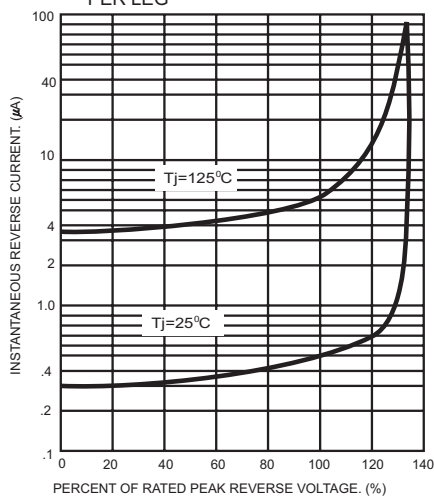
**FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



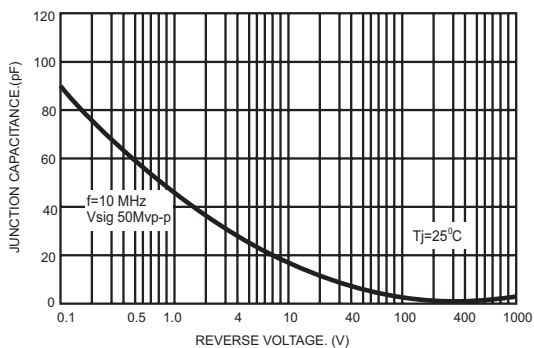
**FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG**



**FIG.4- TYPICAL REVERSE CHARACTERISTICS PER LEG**



**FIG.5- TYPICAL JUNCTION CAPACITANCE**





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