

# GP1001 - GP1007

10.0 AMPS. Glass Passivated Rectifiers

**TO-220AB**

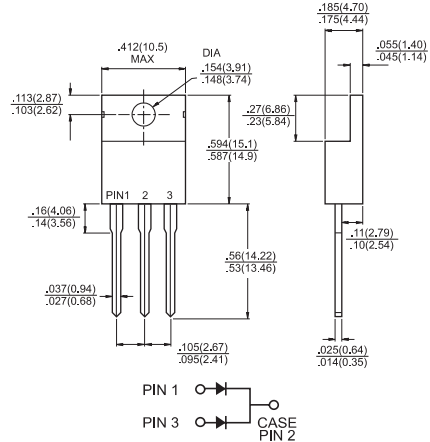


## Features

- ◇ Glass passivated chip junction.
- ◇ High efficiency, Low VF
- ◇ High current capability
- ◇ High reliability
- ◇ High surge current capability
- ◇ Low power loss

## Mechanical Data

- ◇ Cases: TO-220AB molded plastic
- ◇ Epoxy: UL 94V-0 rate flame retardant
- ◇ Terminals: Pure tin plated, lead free. 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



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 @ $T_c = 100^\circ C$	$I_{(AV)}$	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 @ $T_c=25^\circ C$ at Rated DC Blocking Voltage @ $T_c=125^\circ C$	$I_R$	5.0 200							$\mu A$ $\mu A$
Typical Junction Capacitance ( Note 1 )	$C_j$	30							pF
Typical Thermal Resistance ( Note 2 )	$R_{\theta JC}$	3.0							$^\circ C/W$
Operating and Storage Temperature Range	$T_J, T_{STG}$	- 65 to + 150							$^\circ C$

- 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

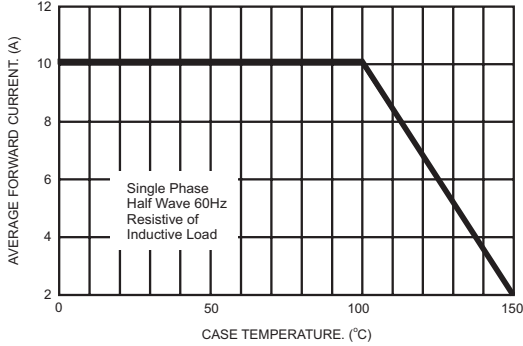


FIG.2- TYPICAL REVERSE CHARACTERISTICS PER LEG

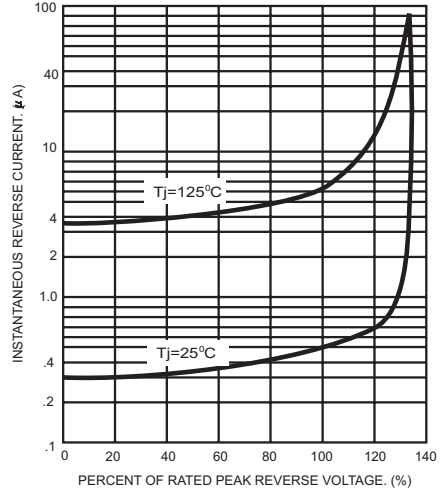


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

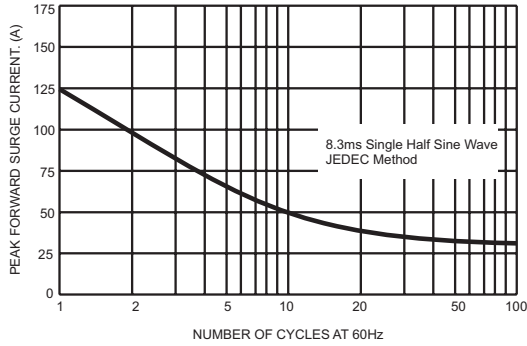


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

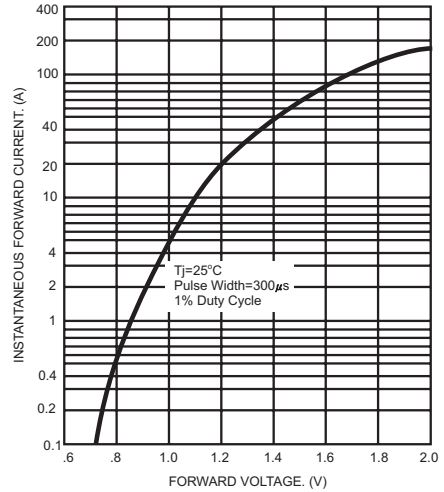


FIG.4- TYPICAL JUNCTION CAPACITANCE

