



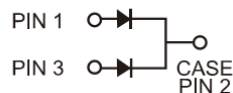
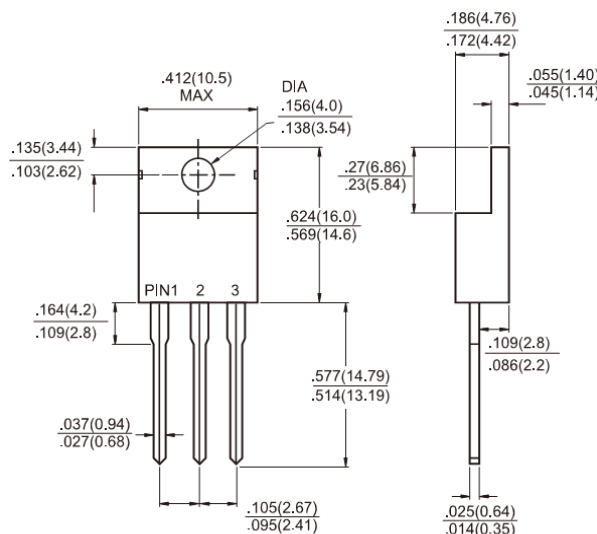
GP1001 - GP1007

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
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode



Mechanical Data

- ✧ Cases: TO-220AB Molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Lead: 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)

Marking Diagram

- GP100X = Specific Device Code
- G = Green Compound
- Y = Year
- WW = Work Week



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	$I_{F(AV)}$	10							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 (Note 1) @ 5 A	V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_A=25^\circ C$	I_R	5							uA
@ $T_A=125^\circ C$		200							
Typical Junction Capacitance (Note 2)	C_j	30							pF
Typical Thermal Resistance	$R_{\theta JC}$	3							°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	- 65 to + 150							°C

Note1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note2: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES (GP1001 THRU GP1007)

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

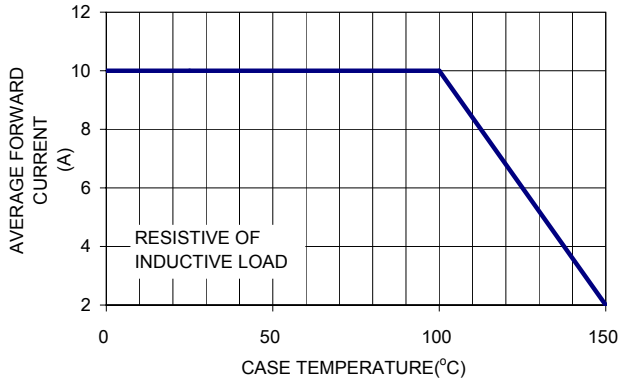


FIG. 2- TYPICAL REVERSE CHARACTERISTICS PER LEG

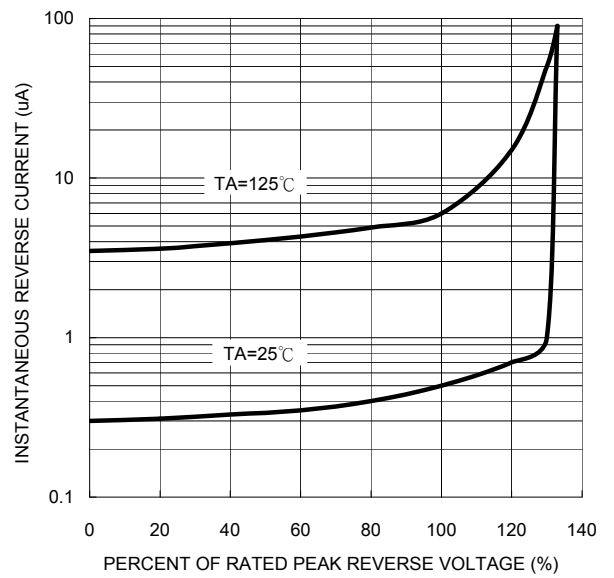


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

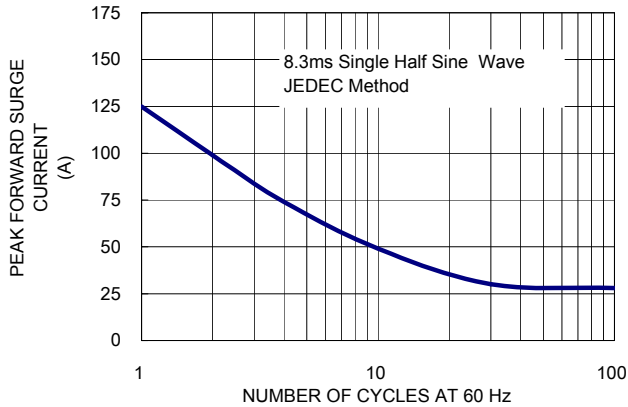


FIG. 4- TYPICAL JUNCTION CAPACITANCE

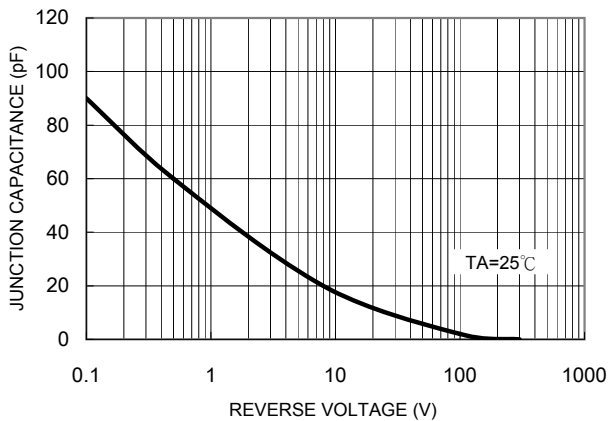


FIG. 5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

