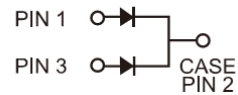
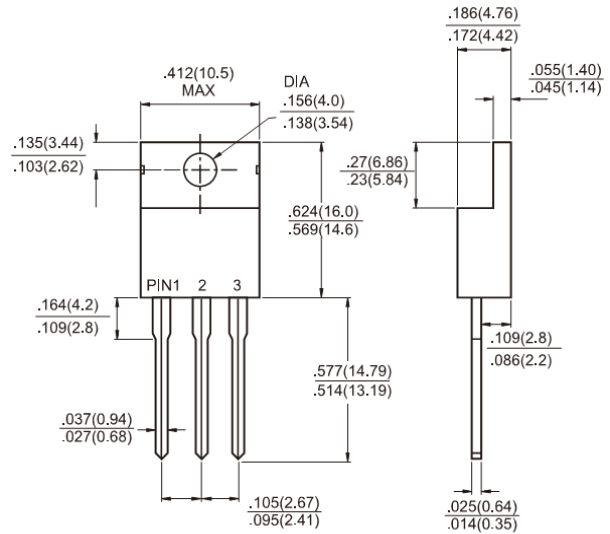




GP1001 - GP1007
10.0 AMPS. Glass Passivated Rectifiers
TO-220AB

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

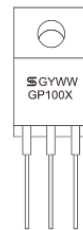


Mechanical Data

- ◇ 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 @ $T_A=25^\circ C$ Rated DC Blocking Voltage @ $T_A=125^\circ C$ | I_R | 5 200 | | | | | | | μA |
| Typical Junction Capacitance (Note 2) | C_j | 30 | | | | | | | pF |
| Typical Thermal Resistance | $R_{\theta JC}$ | 3 | | | | | | | $^\circ C/W$ |
| Operating and Storage Temperature Range | T_J, T_{STG} | - 65 to + 150 | | | | | | | $^\circ C$ |

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

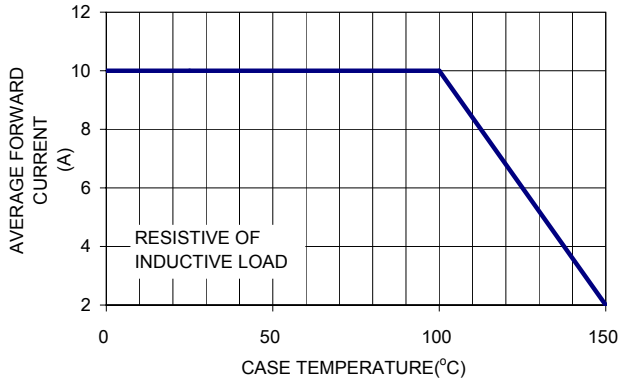


FIG. 2- TYPICAL REVERSE CHARACTERISTICS PER LEG

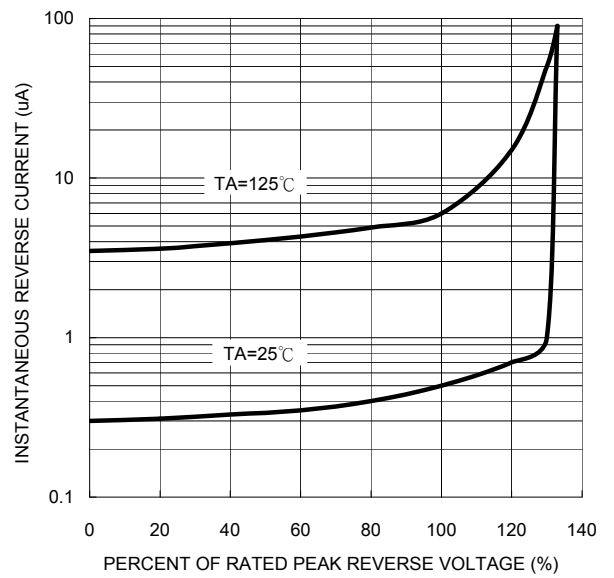


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

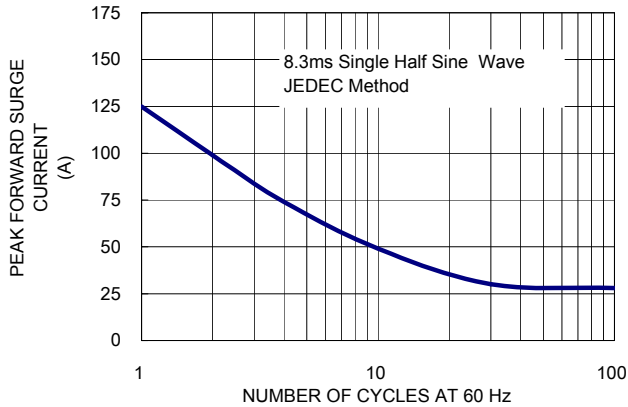


FIG. 4- TYPICAL JUNCTION CAPACITANCE

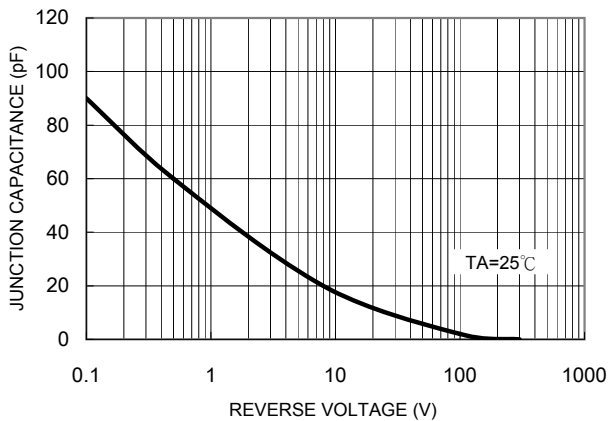


FIG. 5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

