Pb **RoHS** COMPLIANCE

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
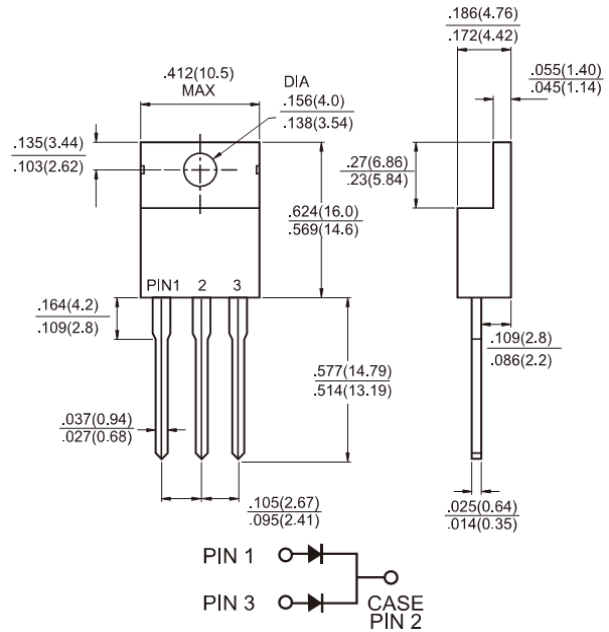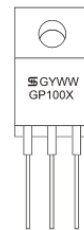
Mechanical Data

◇ 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℃/10 seconds .16", (4.06mm) from case.
◇ Weight: 2.24 grams

.186(4.76)
.172(4.42)

.412(10.5) MAX

DIA .156(4.0) .138(3.54)

.055(1.40)
.045(1.14)

.135(3.44)
.103(2.62)

.27(6.86)
.23(5.84)

.624(16.0)
.569(14.6)

PIN1 2 3

.164(4.2)
.109(2.8)

.577(14.79)
.514(13.19)

.109(2.8)
.086(2.2)

.037(0.94)
.027(0.68)

.105(2.67)
.095(2.41)

.025(0.64)
.014(0.35)

PIN 1 ○—▶|—○
PIN 3 ○—▶|— CASE PIN 2

Dimensions in inches and (millimeters)

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

GYWW
GP100X

Maximum Ratings and Electrical Characteristics

Rating at 25 ℃ 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 ℃ Rated DC Blocking Voltage @ T_A=125℃	I_R	5 200							uA
Typical Junction Capacitance (Note 2)	Cj	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.

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RATINGS AND CHARACTERISTIC CURVES (GP1001 THRU GP1007)

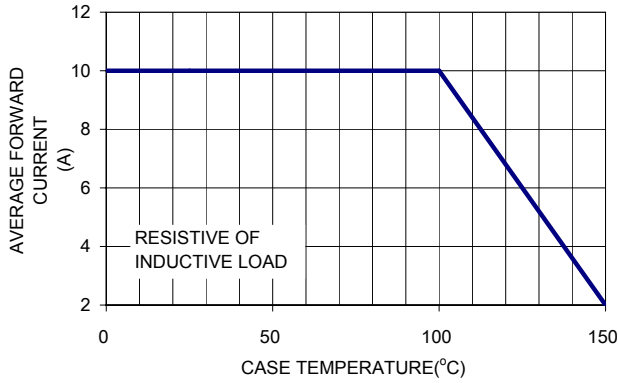FIG.1- MAXMUM FORWARD CURRENT DERATING CURVE

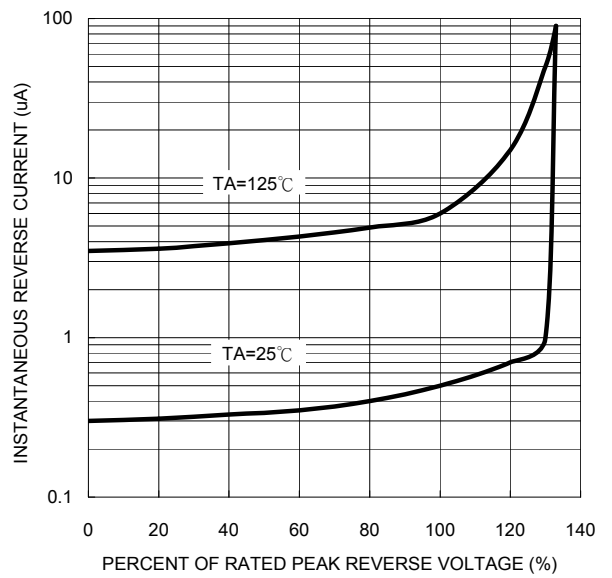FIG. 2- TYPICAL REVERSE CHARACTERISTICS PER LEG
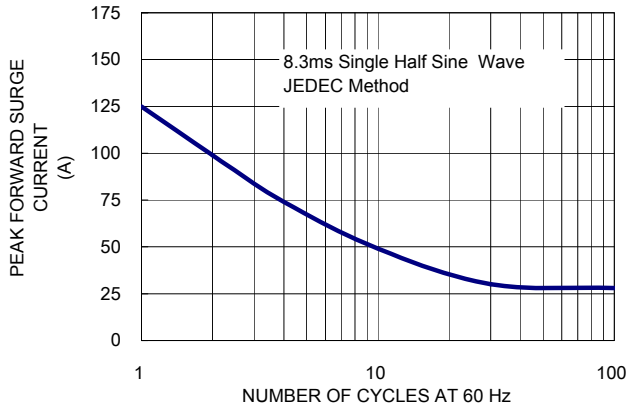
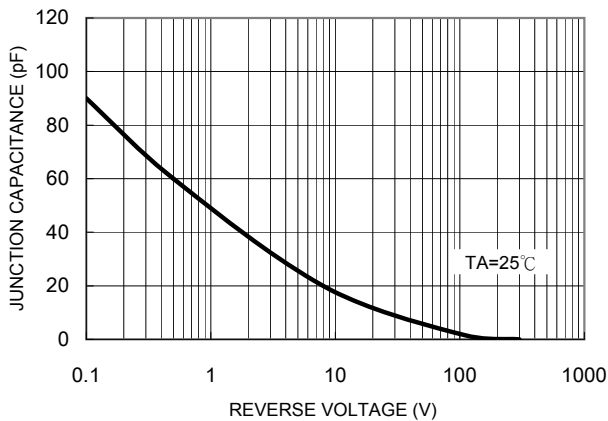FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

FIG. 4- TYPICAL JUNCTION CAPACITANCE

FIG. 5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

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