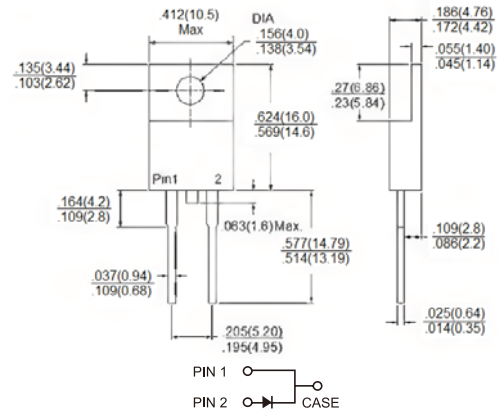




GPA1601 - GPA1607

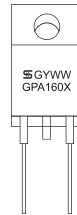
16.0 AMPS. Glass Passivated Rectifiers

TO-220AC



Dimensions in inches and (millimeters)

Marking Diagram



GPA160X = Specific Device Code
G = Green Compound
Y = Year
WW = Work Week

Features

- ◇ UL Recognized File # E-326243
- ◇ Glass passivated chip junction.
- ◇ High efficiency, Low VF
- ◇ High current capability
- ◇ High reliability
- ◇ High surge current capability
- ◇ Low power lossy
- ◇ Green compound with suffix "G" on packing code & prefix "G" on datecode.

Mechanical Data

- ◇ Cases: TO-220AC 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

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	GPA 1601	GPA 1602	GPA 1603	GPA 1604	GPA 1605	GPA 1606	GPA 1607	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 @T _C = 100 °C	I _{F(AV)}	16.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	250							A
Maximum Instantaneous Forward Voltage @16.0A	V _F	1.1							V
Maximum DC Reverse Current at @ T _A =25 °C Rated DC Blocking Voltage (Note 1) @ T _A =125 °C	I _R	10 250							uA uA
Typical Junction Capacitance (Note 3)	C _j	100							pF
Typical Thermal Resistance (Note 2)	R _{θJC}	2.0							°C/W
Operating and Storage Temperature Range	T _J	- 65 to + 150							°C
Operating and Storage Temperature Range	T _{STG}	- 65 to + 150							°C

Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle
2. Mounted on Heatsink size 2" x 3" x 0.25" Al-Plate.
3. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.

RATINGS AND CHARACTERISTIC CURVES (GPA1601 THRU GPA1607)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

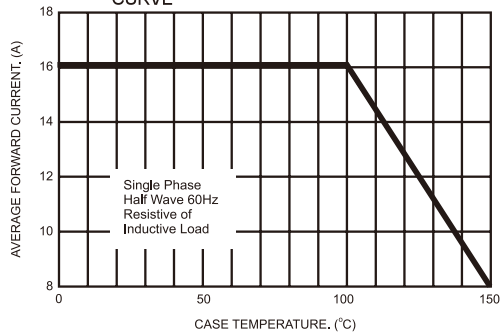


FIG.2- TYPICAL REVERSE CHARACTERISTICS

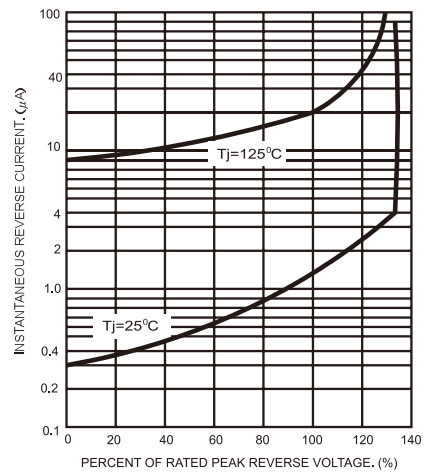


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

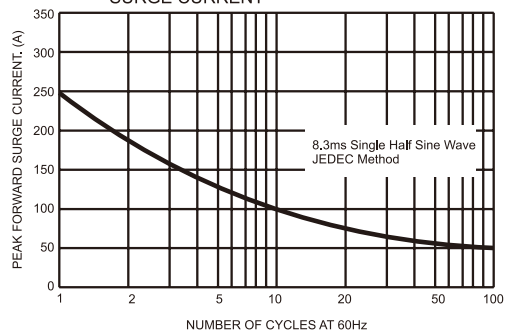


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

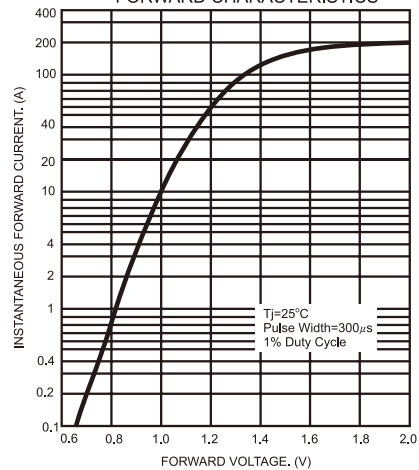


FIG.4- TYPICAL JUNCTION CAPACITANCE

