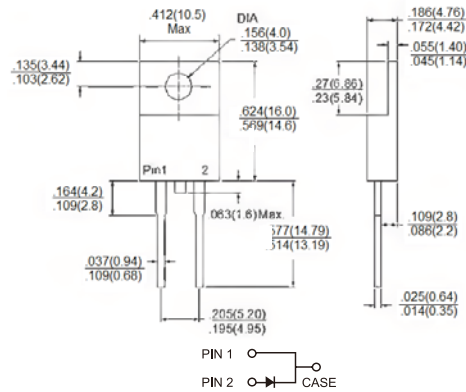




GPA801 - GPA807

8.0 AMPS. Glass Passivated Rectifiers

TO-220AC



Dimensions in inches and (millimeters)

Marking Diagram



GPA80X = 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 capacity
- ◇ 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-220AC Molded plastic
- ◇ Epoxy: UL 94V-O rate flame retardant
- ◇ Terminal: 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 801	GPA 802	GPA 803	GPA 804	GPA 805	GPA 806	GPA 807	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)}	8.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	150							A
Maximum Instantaneous Forward Voltage @ 8.0A	V _F	1.1							V
Maximum DC Reverse Current @ T _A =25°C at Rated DC Blocking Voltage @ T _A =125 °C (Note 1)	I _R	5 100							uA
Typical Junction Capacitance (Note 3)	C _j	50							pF
Typical Thermal Resistance (Note 2)	R _{θJA}	2.5							°C/W
Operating Temperature Range	T _J	-65 to +150							°C
Storage Temperature Range	T _{STG}	-65 to +150							°C

- Note: 1. Pulse Test with PW=300 usec, 1% Duty Cycle
2. Mount on P.C. Board with 2"x3" x0.25" Al-plate
3. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

RATINGS AND CHARACTERISTIC CURVES (GPA801 THRU GPA807)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

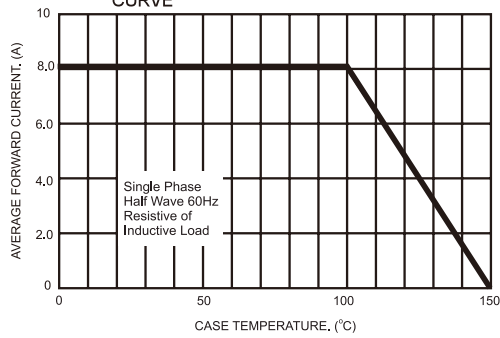


FIG.2- TYPICAL REVERSE CHARACTERISTICS

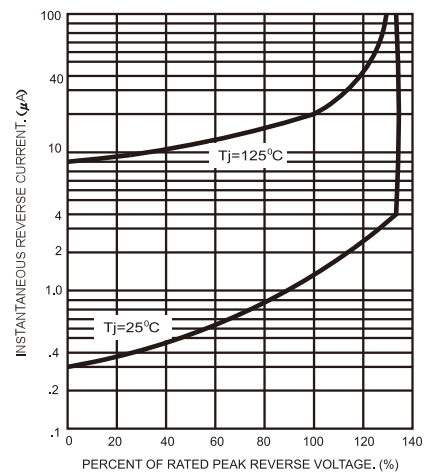


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

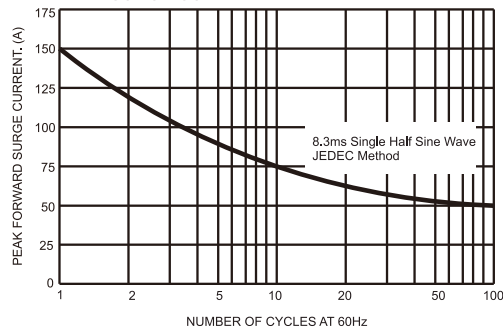


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

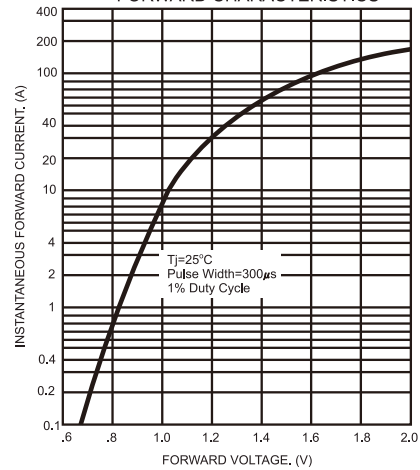


FIG.4- TYPICAL JUNCTION CAPACITANCE

