



# GPA1601 THRU GPA1607

## 16.0 AMPS. Glass Passivated Rectifiers



Voltage Range  
50 to 1000 Volts  
Current  
16.0 Amperes

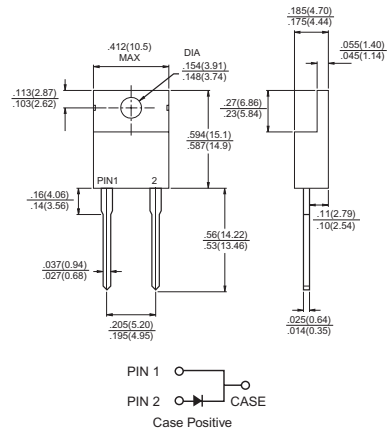
### Features

- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability

### Mechanical Data

- ✧ Cases: TO-220A molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Terminals: Leads 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

### TO-220A



**Dimensions in inches and (millimeters)**

### 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%

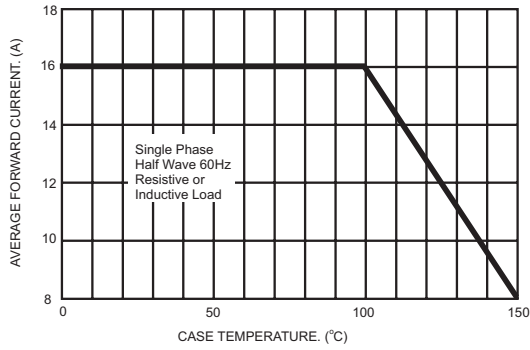
Type Number	Symbol	GPA 1601	GPA 1602	GPA 1603	GPA 1604	GPA 1605	GPA 1606	GPA 1607	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length @ $T_c = 100^\circ\text{C}$	$I_{(AV)}$	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 @ $T_c=25^\circ\text{C}$ at Rated DC Blocking Voltage	$I_R$	10							uA uA
Typical Junction Capacitance ( Note 1 )	$C_j$	100							pF
Typical Thermal Resistance (Note 2)	$R_{\theta_{JC}}$	2.0							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	- 65 to + 150							$^\circ\text{C}$

Notes: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.

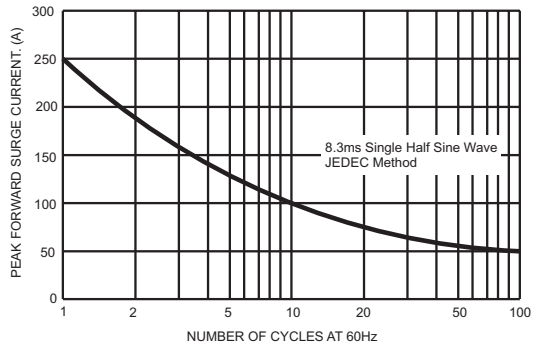
2. Thermal Resistance from Junction to Case Mounted on Heatsink size 2" x 3" x 0.25" Al-Plate

## RATINGS AND CHARACTERISTIC CURVES (GPA1601 THRU GPA1607)

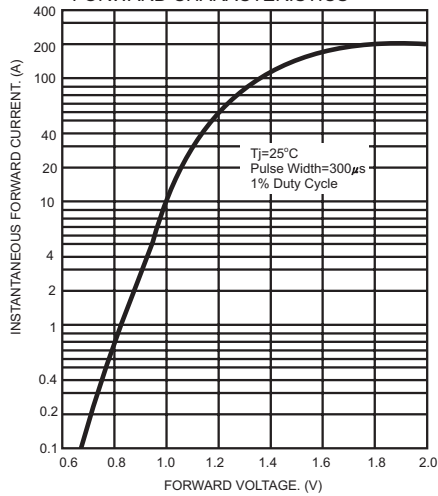
**FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE**



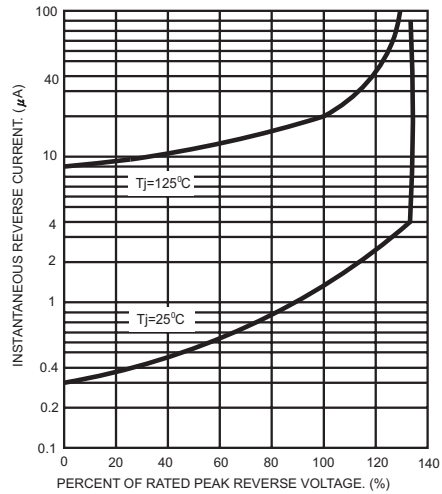
**FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4- TYPICAL REVERSE CHARACTERISTICS**



**FIG.5- TYPICAL JUNCTION CAPACITANCE**

