



# GPAF1601 THRU GPAF1607

## Isolation 16.0 AMPS. Glass Passivated Rectifiers



Voltage Range  
50 to 1000 Volts  
Current  
16.0 Amperes

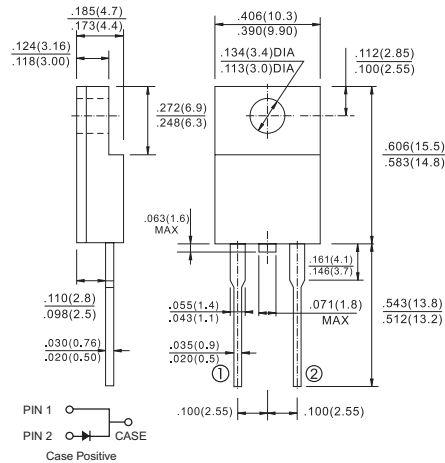
### Features

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

### Mechanical Data

- ◇ Cases: ITO-220AC 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 / 0.25" (6.35mm) from case 10 seconds.
- ◇ Mounting torque: 5 in – 1bs. max.
- ◇ Weight: 2.24 grams

### ITO-220AC



**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	GPAF 1601	GPAF 1602	GPAF 1603	GPAF 1604	GPAF 1605	GPAF 1606	GPAF 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 @ $T_C=125^\circ\text{C}$	$I_R$	10 250							$\mu\text{A}$ $\mu\text{A}$
Typical Junction Capacitance ( Note 1 )	$C_j$	100							pF
Typical Thermal Resistance (Note 2)	$R_{\theta_{JC}}$	4.0							$^\circ\text{C}/\text{W}$
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 (GPAF1601 THRU GPAF1607)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

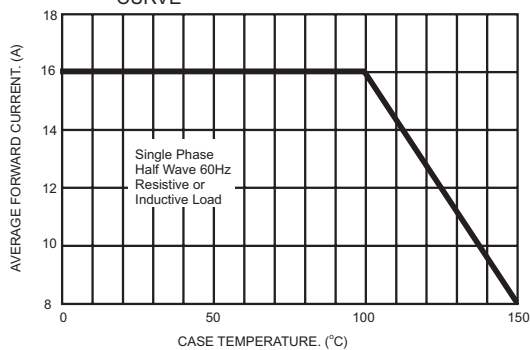


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

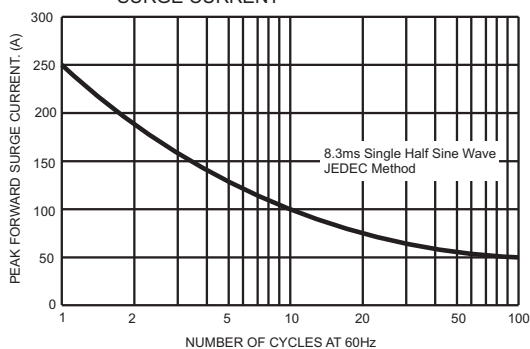


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

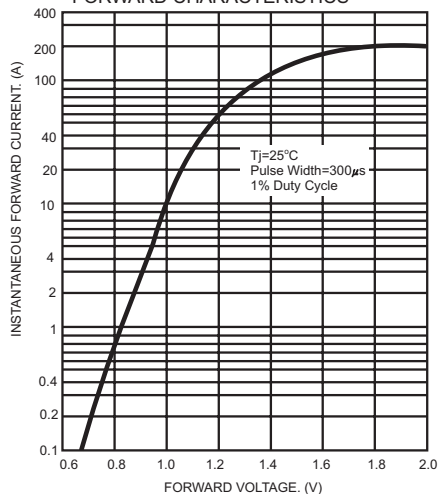


FIG.4- TYPICAL REVERSE CHARACTERISTICS

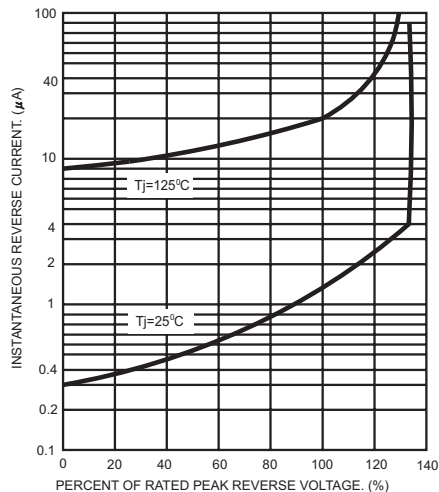


FIG.5- TYPICAL JUNCTION CAPACITANCE

