

Pb Free Plating Product

## GP1601 thru GP1607



16.0 Ampere Dual Common Cathode General Purpose Rectifier Diodes

### Features

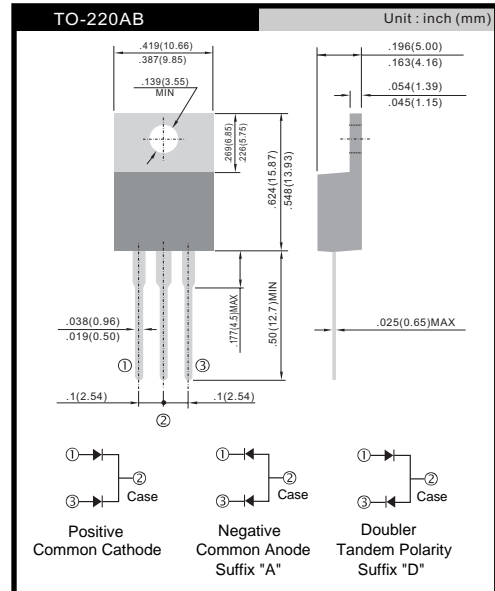
- \* Glass passivated chip junction
- \* Low forward voltage drop
- \* High current capability
- \* Low reverse leakage current
- \* High surge current capability

### Application

- \* Automotive Inverters/Solar Inverters
- \* Plating Power Supply, SMPS and UPS
- \* Car Audio Amplifiers and Sound Device Systems

### Mechanical Data

- \* Case: Heatsink TO-220AB
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solderable per MIL-STD-202 method 208
- \* Polarity: As marked on diode body
- \* Mounting position: Any
- \* Weight: 2.1 gram approxiamtely



## 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	GP 1601	GP 1602	GP 1603	GP 1604	GP 1605	GP 1606	GP 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 @ $T_C = 100^\circ C$	$I_{(AV)}$	16.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	150							A
Maximum Instantaneous Forward Voltage @8.0A	$V_F$	1.1							V
Maximum DC Reverse Current @ $T_C=25^\circ C$ at Rated DC Blocking Voltage @ $T_C=125^\circ C$	$I_R$	10 250							$\mu A$ $\mu A$
Typical Junction Capacitance ( Note 1)	$C_j$	50							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	1.5							$^\circ C/W$
Operating and Storage Temperature Range	$T_J, T_{STG}$	- 65 to + 150							$^\circ C$

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 (GP1601 THRU GP1607)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

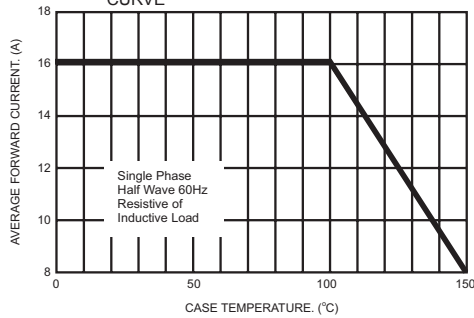


FIG.2- TYPICAL REVERSE CHARACTERISTICS

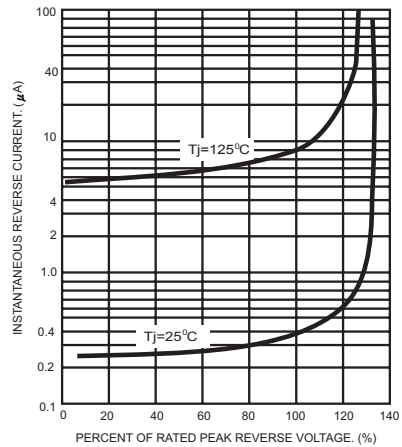


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

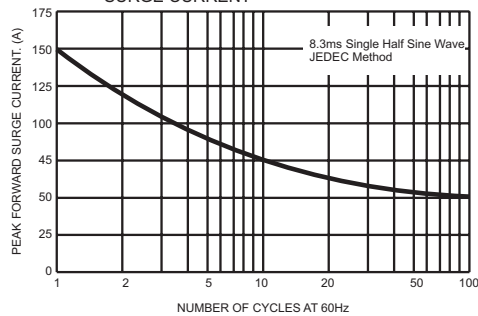


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

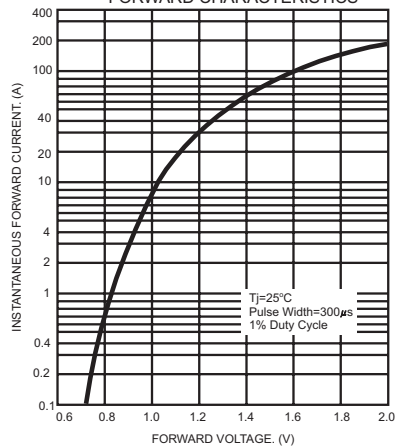


FIG.4- TYPICAL JUNCTION CAPACITANCE

