GP1601 THRU GP1607

16.0 AMPS. Glass Passivated Rectifiers

Voltage Range
50 to 1000 Volts
Current
16.0 Amperes

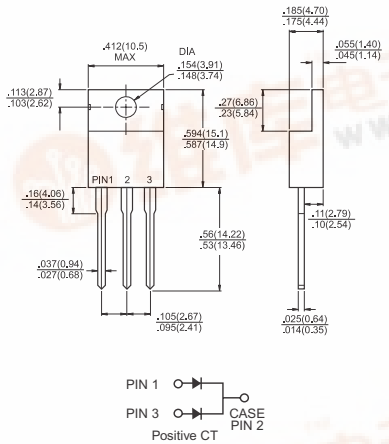
Features

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

Mechanical Data

- ✧ Cases: TO-220 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℃/10 seconds .16",(4.06mm) from case.
- ✧ Weight: 2.24 grams

TO-220



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ 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℃	$I_{(AV)}$	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℃ at Rated DC Blocking Voltage @ T_C=125℃	I_R	10 250							uA uA
Typical Junction Capacitance (Note 1)	Cj	50							pF
Typical Thermal Resistance (Note 2)	$R\theta_{JC}$	1.5							℃/W
Operating and Storage Temperature Range	T_J ,T_{STG}	- 65 to + 150							℃

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

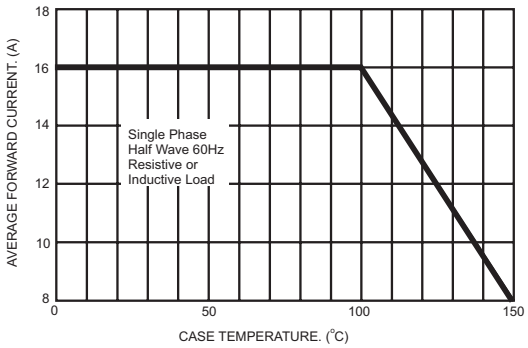


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

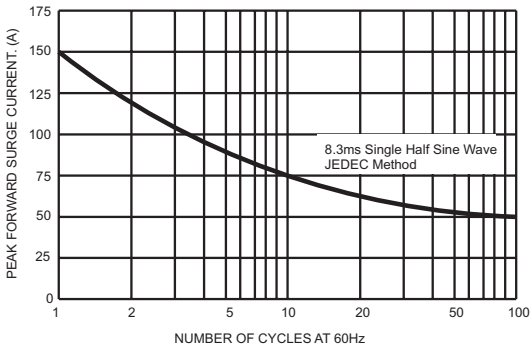


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

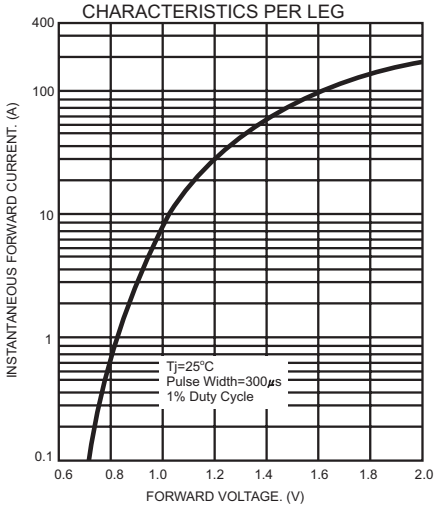


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER LEG

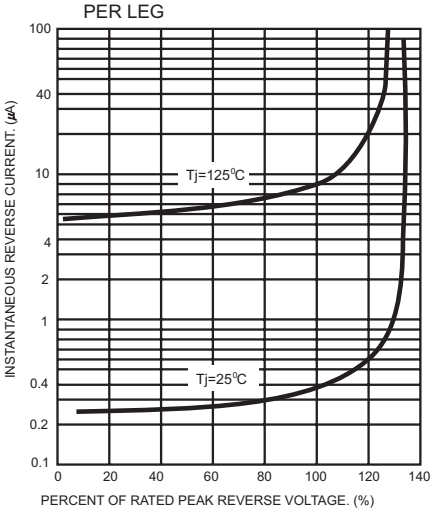


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG