Pb Free Plating Product

GPAF1601R thru GPAF1607R

16.0 Amperes Insulated Reverse Polarity Glass Passivated Avalanche Rectifier Diode

Features

- ✶ Avalanche energy rated(100% guarantee)
- ✶ Low forward voltage drop
- ✶ High current capability
- ✶ Low reverse leakage current
- ✶ High surge current capability

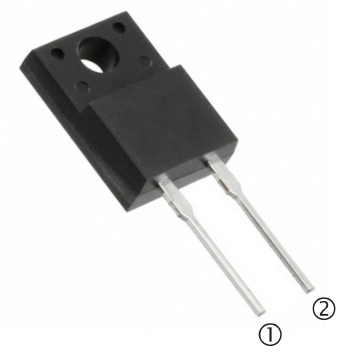
Application

- ✶ PhotoVoltaic BY-PASS DIODE
- ✶ PhotoVoltaic High-amperage Combiner Boxes
- ✶ Alternator(Automotive Wireharness/Capacitor Bank)

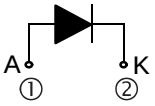
Mechanical Data

- ✶ Case: ITO-220AC fully plastic isolated package
- ✶ 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: 2.0 gram approximately

ITO-220AC/TO-220F-2L



Internal Configuration



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Type Number	Symbol	GPAF 1601R	GPAF 1602R	GPAF 1603R	GPAF 1604R	GPAF 1605R	GPAF 1606R	GPAF 1607R	Units
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified @Tc = 120℃	I(AV)	16.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	IFSM	250							A
Maximum Instantaneous Forward Voltage @ 16.0A	VF	1.1							V
Maximum DC Reverse Current @ T_A=25℃ at Rated DC Blocking Voltage @ TA=125℃	IR	5.0 50							uA
Typical Junction Capacitance (Note 1)	Cj	100							pF
Typical Thermal Resistance (Note 2)	RθJC	3.0							℃/W
Operating Temperature Range	TJ	-65 to +150							℃
Storage Temperature Range	TSTG	-65 to +150							℃

Note 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.
2. Mount on P.C. Board with 2"x3" x0.25" Al-plate

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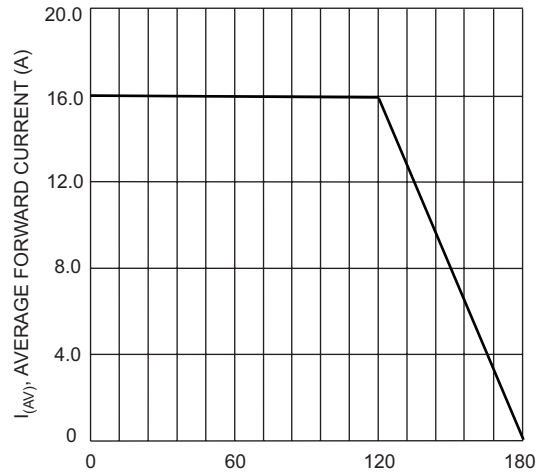


Fig. 1 Forward Current Derating Curve

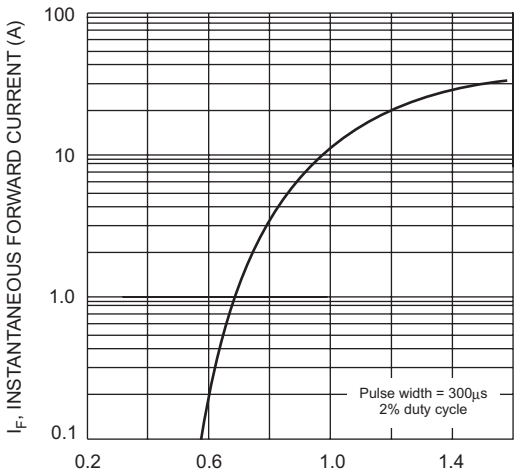


Fig. 2 Typical Forward Characteristics

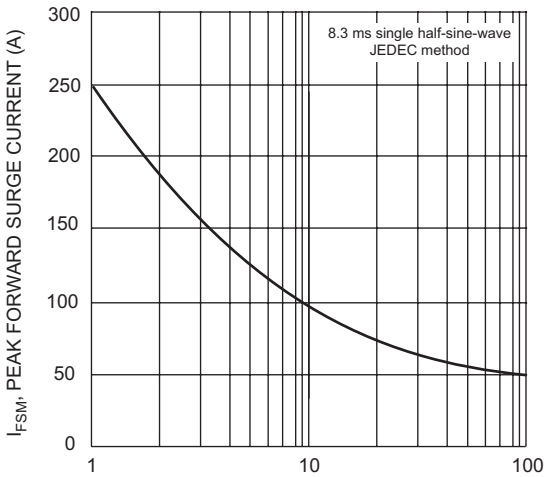


Fig. 3 Max Non-Repetitive Surge Current

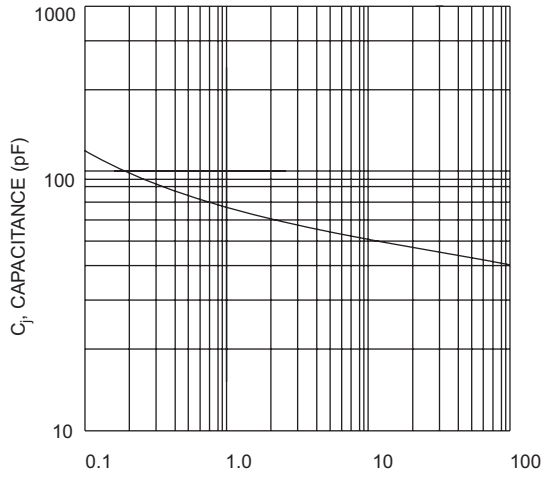
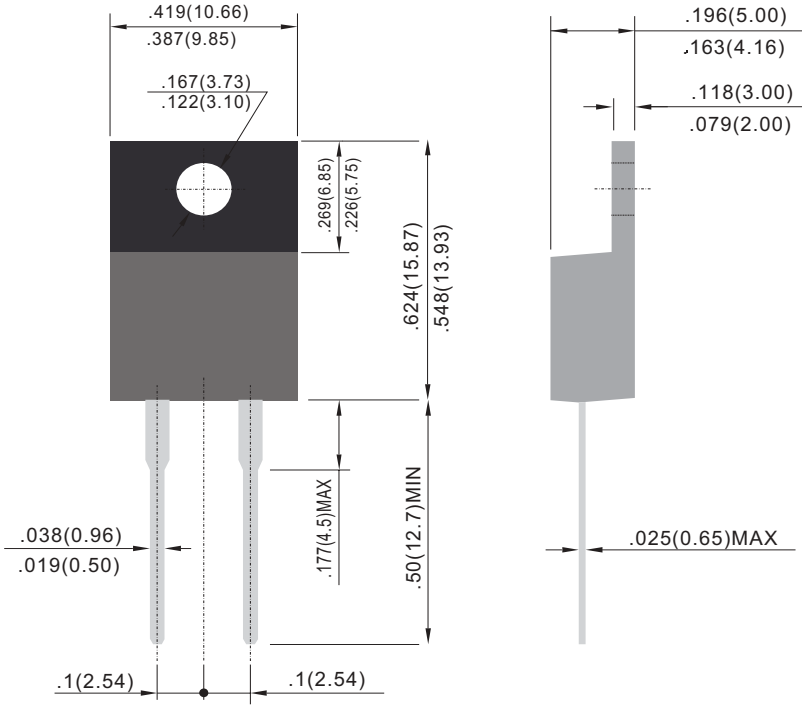


Fig. 4 Typical Junction Capacitance

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ITO-220AC/TO-220F-2L Package Outline:



Unit : inch (mm)

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