

Pb Free Plating Product

GSA1601 thru GSA1607



16.0 Amperes Heatsink Single Glass Passivated Process Avalanche Rectifier Diode

Features

Avalanche energy rated(100% guarantee)

- Low forward voltage drop
- High current capability
- Low reverse leakage current
- High surge current capability

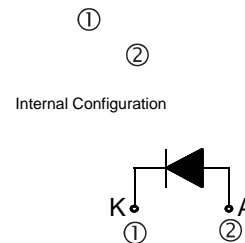
Application

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

Mechanical Data

- Case: TO-220AC open metal heatsink 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: 2.2 gram approximately

TO-220AC/TO-220-2L



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 | GSA 1601 | GSA 1602 | GSA 1603 | GSA 1604 | GSA 1605 | GSA 1606 | GSA 1607 | 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 @ TA=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) | R JC | 1.5 | | | | | | | : /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

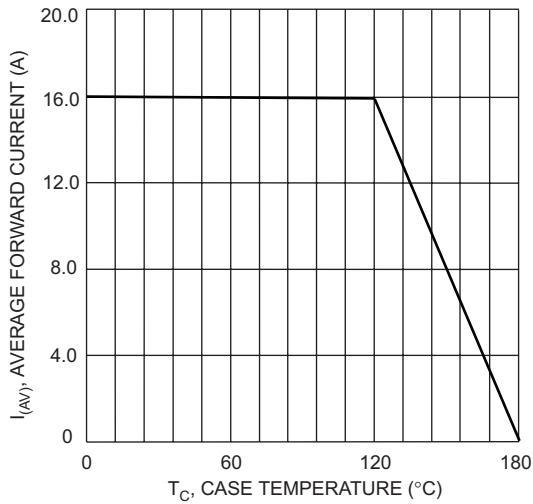


Fig. 1 Forward Current Derating Curve

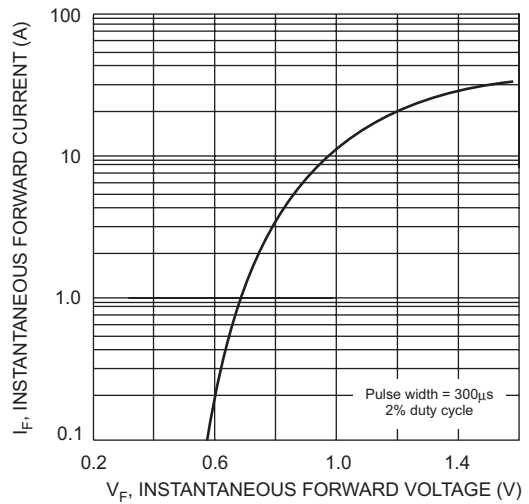


Fig. 2 Typical Forward Characteristics

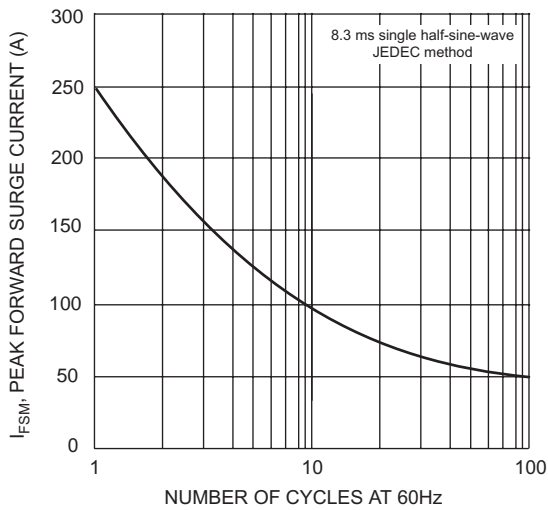


Fig. 3 Max Non-Repetitive Surge Current

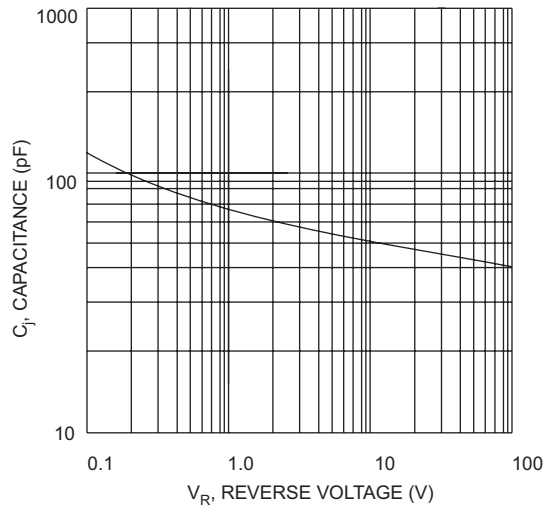


Fig. 4 Typical Junction Capacitance

