# BY448

## SINTERED GLASS JUNCTION AVALANCHE RECTIFIER

**VOLTAGE:1500V** **CURRENT: 2.0A**

GULF SEMI

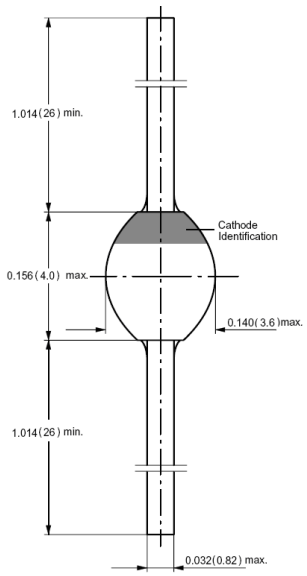
## FEATURE

Glass passivated
High maximum operating temperature
Low leakage current
Excellent stability

## MECHANICAL DATA

Case: SOD-57 sintered glass case
Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C
Polarity: color band denotes cathode end
Mounting position: any

**SOD-57**




Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%)

| | SYMBOL | BY448 | units |
|---|---|---|---|
| Maximun Repetitive Peak Reverse Voltage | Vrrm | 1500 | V |
| Maximum RMS Voltage | Vrms | 1050 | V |
| Maximum DC blocking Voltage | Vdc | 1500 | V |
| Maximum Average Forward Rectified Current | If(av) | 2.0 | A |
| Non-Repetitive Peak Forward Surge Current at tp=10ms half sinewave | Ifsm | 30.0 | A |
| Maximum Instantaneous Forward Voltage at 3.0A | Vf | 1.60 | V |
| Maximum DC Reverse Current Ta =25°C<br>at rated DC blocking voltage Ta =150°C | Ir | 5.0<br>150.0 | μA |
| Typical Reverse Recovery Time (Note 1) | Trr | 2000 | nS |
| Typical Thermal Resistance (Note 2) | Rth(ja) | 100 | K /W |
| Storage and Operating Junction Temperature | Tstg, Tj | -65 to +175 | °C |

Note:
1. Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
2. on PC with spacing 25mm

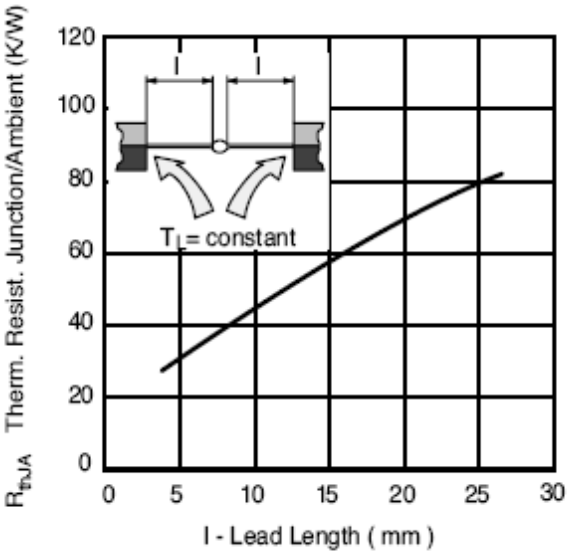



Figure 1. Typ. Thermal Resistance vs. Lead Length

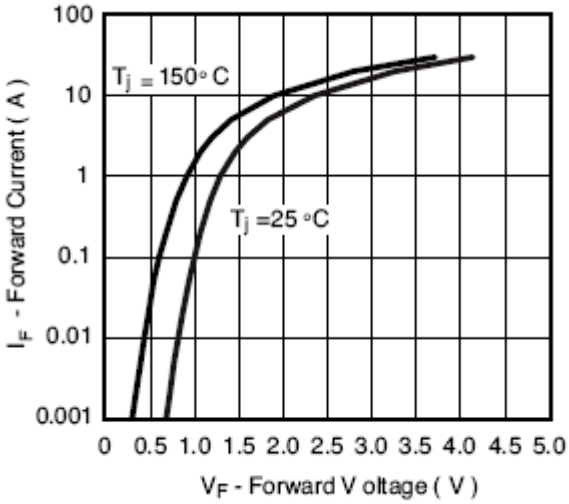



Figure 2. Forward Current vs. Forward Voltage

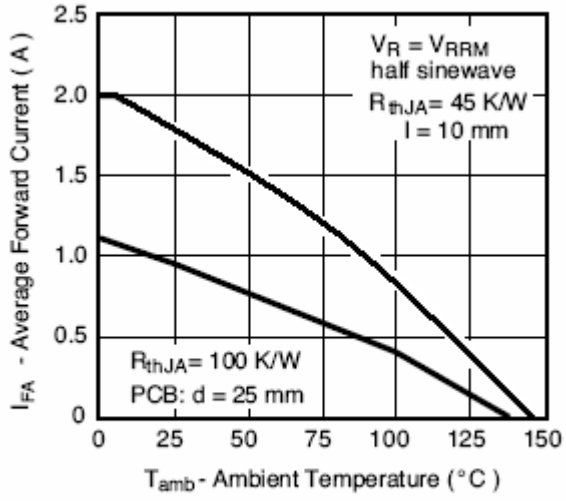



Figure 3. Max. Average Forward Current vs. Ambient Temperature

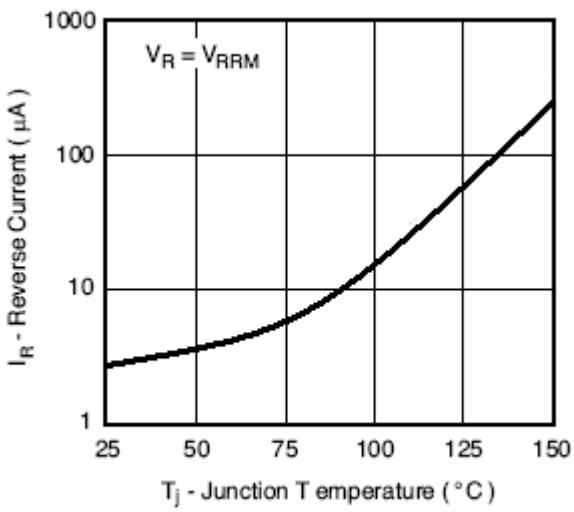



Figure 4. Reverse Current vs. Junction Temperature

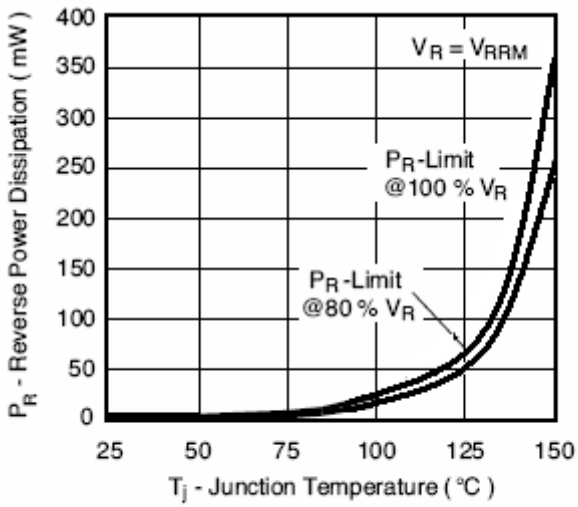



Figure 5. Max. Reverse Power Dissipation vs. Junction Temperature

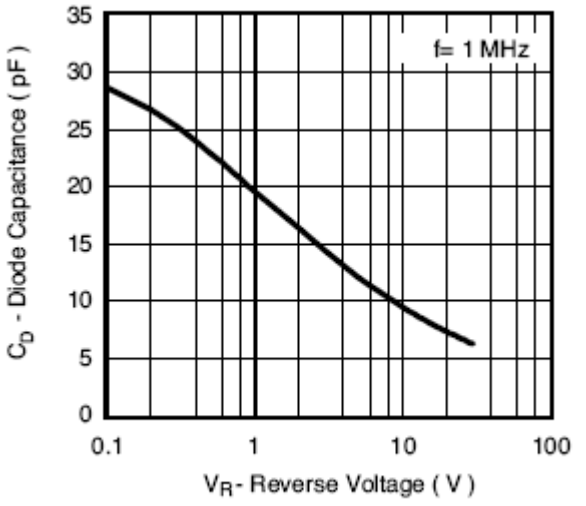



Figure 6. Diode Capacitance vs. Reverse Voltage