

**SDR958/3
 thru
 SDR9511/3**

**50 AMP
 800-1100 VOLTS
 80 nsec
 ULTRA FAST
 RECTIFIER**

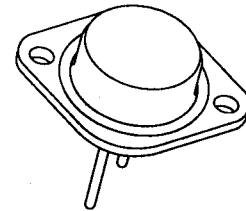
Designer's Data Sheet

FEATURES:

- Ultrafast Recovery: 60 nsec typical
- High Surge Rating
- Low Reverse Leakage Current
- Low Forward Voltage Drop
- Low Junction Capacitance
- Hermetically Sealed Package
- Gold Eutectic Die Attach available
- Ultrasonic Aluminum Wire Bonds

- TX, TXV and Space Level Screening Available

TO-3



MAXIMUM RATINGS

| RATING | SYMBOL | VALUE | UNIT |
|--|--------------------|----------------------------|-------|
| Peak Repetitive Reverse and DC Blocking Voltage | VRRM VRWM VR | 800 900 1000 1100 | Volts |
| Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C) note 1 | IO | 50 | Amps |
| Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C) | IFSM | 600 | Amps |
| Operating and storage temperature | Top & Tstg | -65 to +200 | °C |
| Maximum Thermal Resistance Junction to Case, note 1 | RθJC | 1.2 | °C/W |

note 1 Pins 1 & 2 connected

SDR958/3 thru SDR9511/3

PRELIMINARY



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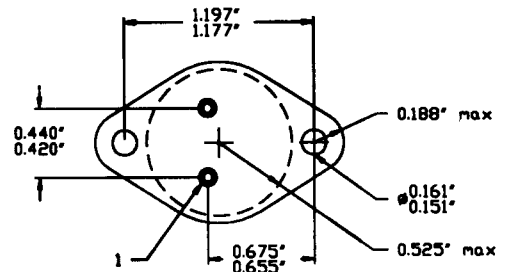
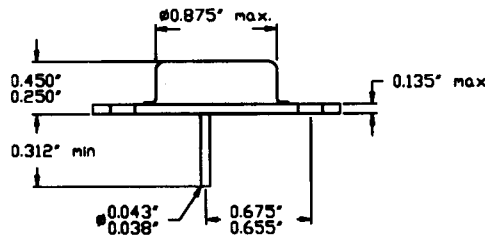
ELECTRICAL CHARACTERISTICS

| CHARACTERISTICS | SYMBOL | MAXIMUM | UNIT |
|---|------------|--------------|-------------|
| Instantaneous Forward Voltage Drop (IF = 25 Adc, TA=25°C, 300ms Pulse) note 1 (IF = 50 Adc, TA=25°C, 300ms Pulse) note 1 | VF | 1.40 1.55 | Vdc |
| Instantaneous Forward Voltage Drop (IF = 25 Adc, TA=100°C, 300ms Pulse) note 1 (IF = 25 Adc, TA= - 55°C, 300ms Pulse) note 1 | VF | 1.30 1.50 | Vdc |
| Reverse Leakage Current (Rated VR, TA=25°C, 300ms pulse minimum) | IR | 100 | µA |
| Reverse Leakage Current (Rated VR, TA=100°C, 300ms pulse minimum) | IR | 10 | mA |
| Junction Capacitance (VR = 10 Vdc, TA=25°C, f= 1 MHz) | CJ | 150 | pf |
| Reverse Recovery Time (IF=500mA, IR=1 A, IRR=250mA, TA=25°C) | trr | 80 | nsec |

CASE OUTLINE: TO-3

CASE: CATHODE
PIN 1: ANODE
PIN 2: ANODE

Note 1:
Connect
Pin 1 & 2
together.



TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

