

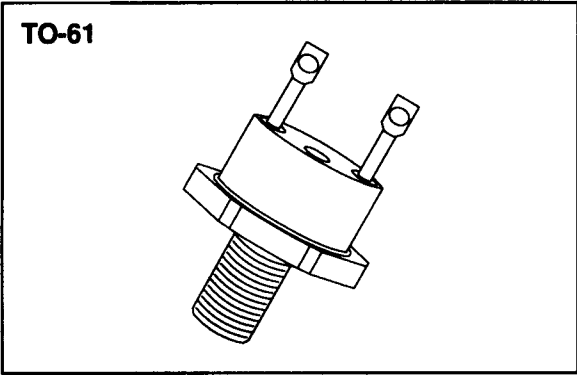
**SDR953/61
 thru
 SDR955/61**

Designer's Data Sheet

- FEATURES:**
- Hyper Fast Recovery: 35 nsec Maximum
 - High Surge Rating
 - Low Reverse Leakage Current
 - Low Junction Capacitance
 - Hermetically Sealed Package
 - Gold Eutectic Die Attach available
 - Ultrasonic Aluminum Wire Bonds

 - TX, TXV and Space Level Screening Available

**50 AMP
 300-500 VOLTS
 35 nsec
 HYPER FAST
 RECTIFIER**



MAXIMUM RATINGS

| RATING | SYMBOL | VALUE | UNIT |
|---|------------|-------------|-------|
| Peak Repetitive Reverse and DC Blocking Voltage | VRRM | 300 | Volts |
| SDR953/61 | VRWM | 400 | |
| SDR954/61 | VR | 500 | |
| SDR955/61 | | | |
| Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C) | IO | 50 | Amps |
| Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C) | IFSM | 450* | Amps |
| Operating and storage temperature | Top & Tstg | -65 to +200 | °C |
| Maximum Thermal Resistance Junction to Case | RθJC | 0.75 | °C/W |

* Package limited

SDR953/61 thru SDR955/61

PRELIMINARY



SOLID STATE DEVICES, INC

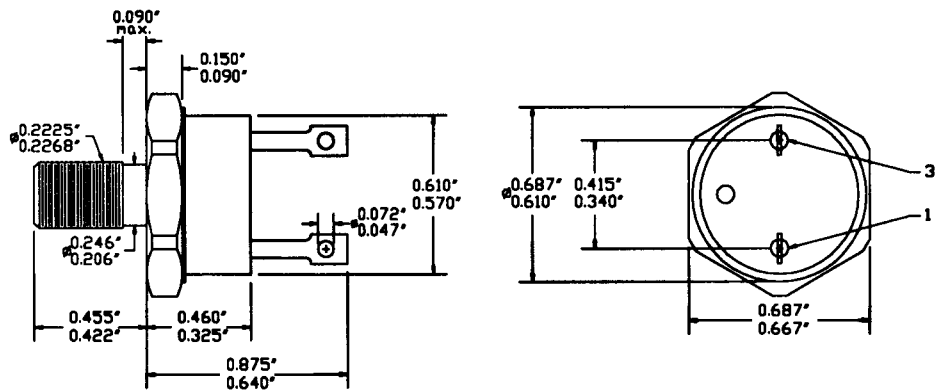
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ELECTRICAL CHARACTERISTICS

| CHARACTERISTICS | SYMBOL | MAXIMUM | UNIT |
|---|--------|--------------|------|
| Instantaneous Forward Voltage Drop (IF = 25 Adc, TA=25°C, 300µs Pulse) (IF = 50 Adc, TA=25°C, 300µs Pulse) | VF | 1.30 1.65 | Vdc |
| Instantaneous Forward Voltage Drop (IF = 25 Adc, TA= 100°C, 300µs Pulse) (IF = 25 Adc, TA= - 55°C, 300µs Pulse) | VF | 1.2 1.4 | Vdc |
| Reverse Leakage Current (Rated VR, TA=25°C, 300µs pulse minimum) | IR | 100 | µA |
| Reverse Leakage Current (Rated VR, TA=100°C, 300µs pulse minimum) | IR | 10 | mA |
| Junction Capacitance (VR = 10 Vdc, TA=25°C, f= 1 MHz) | CJ | 250 | pf |
| Reverse Recovery Time (IF=500mA, IR=1 A, IRR=250mA, TA=25°C) | trr | 35 | nsec |

CASE OUTLINE: TO-61

PIN 1: ANODE
PIN 3: CATHODE



TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

