

**SDR958/3  
 thru  
 SDR9511/3**

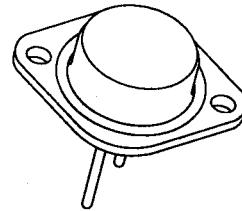
**Designer's Data Sheet**

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

**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	800	Volts
	VRWM	900	
	SDR958/3	1000	
	SDR959/3	1100	
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

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PRELIMINARY



**SOLID STATE DEVICES, INC**

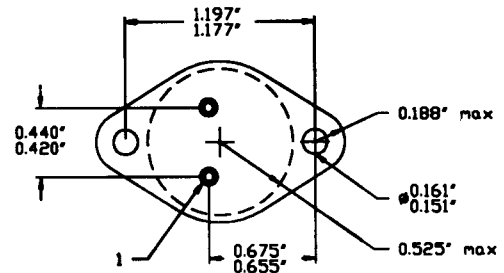
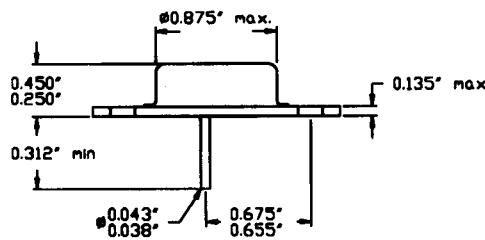
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**ELECTRICAL CHARACTERISTICS**

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

**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

