PRELIMINARY

SOLID STATE DEVICES, INC

14849 Firestone Boulevard · La Mirada,CA 90638
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

SDR958N&P thru SDR9511N&P

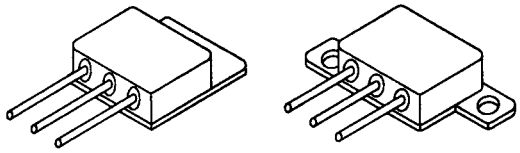
Designer's Data Sheet

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
- Ceramic Seals for improved hermeticity available
- TX, TXV and Space Level Screening Available

TO-258 **TO-259**



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage **SDR958N&P** **SDR959N&P** **SDR9510N&P** **SDR9511N&P**	V_{RRM} V_{RWM} V_R	800 900 1000 1100	**Volts**
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C) note 1	I_O	50	**Amps**
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C)	I_{FSM}	550	**Amps**
Operating and storage temperature	T_{op} & T_{stg}	-65 to +200	°C
Maximum Thermal Resistance Junction to Case, note 1	$R_{\theta JC}$	0.85	°C/W

note 1 Pins 2&3 connected

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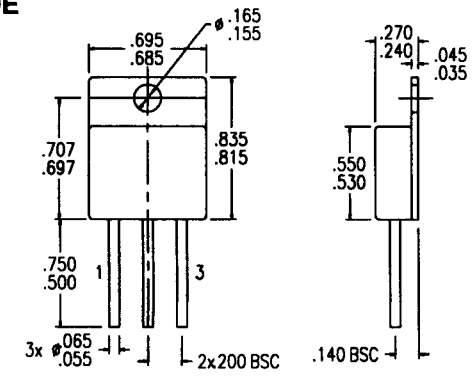
ELECTRICAL CHARACTERISTICS

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	1.43 1.62	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	1.33 1.53	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-258

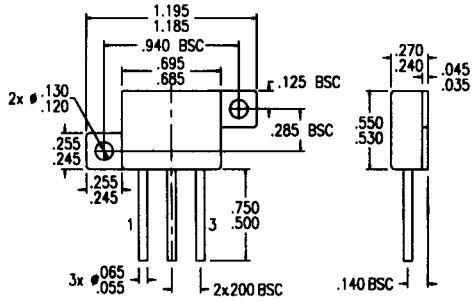
PIN 1: CATHODE
PIN 2: ANODE
PIN 3: ANODE

note 1:
Pin 2 & 3 connected together



CASE OUTLINE: TO-259

PIN 1: CATHODE
PIN 2: ANODE
PIN 3: ANODE



TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

