PRELIMINARY

SOLID STATE DEVICES, INC

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

SDR9100N&P thru SDR9102N&P

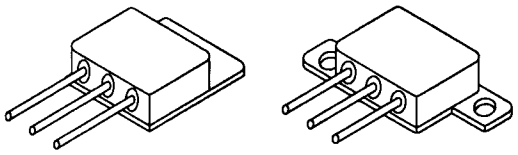
Designer's Data Sheet

120 AMP 100-200 VOLTS 35 nsec HYPER FAST RECTIFIER

FEATURES:

- Hyper Fast Recovery: 35 nsec Maximum
- High Surge Rating
- Low Reverse Leakage Current
- Low Junction Capacitance
- Hermetically Sealed Low Profile 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 **SDR9100N&P** **SDR9101N&P** **SDR9102N&P**	V_{RRM} V_{RWM} V_R	100 150 200	**Volts**
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	I_O	120	**Amps**
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C) note 1 & 2	I_{FSM}	500	**Amps**
Operating and storage temperature	T_{op} & T_{stg}	-65 to +200	°C
Maximum Thermal Resistance Junction to Case, note 1	$R_{\theta JC}$	0.4	°C/W

note 1 connect pins 2 & 3 together in appication
note 2 higher surge rating class available

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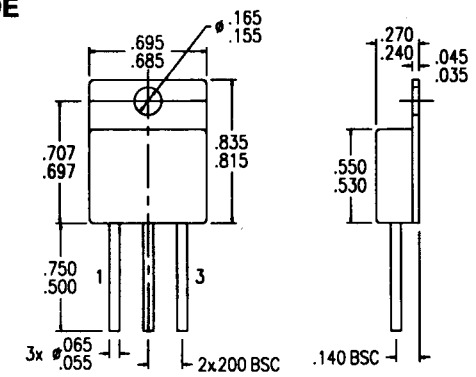
ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 50 Adc, TA=25°C, 300µs Pulse) (IF =100 Adc, TA=25°C, 300µs Pulse)	VF	1.05 1.25	Vdc
Instantaneous Forward Voltage Drop (IF =50 Adc, TA=100°C, 300µs Pulse) (IF =50 Adc, TA= - 55°C, 300µs Pulse)	VF	0.95 1.15	Vdc
Reverse Leakage Current (Rated VR, TA=25°C, 300µs pulse minimum)	IR	200	µA
Reverse Leakage Current (Rated VR, TA=100°C, 300µs pulse minimum)	IR	20	mA
Junction Capacitance (VR = 10 Vdc, TA=25°C, f= 1 MHz)	CJ	900	pf
Reverse Recovery Time (IF=500mA, IR=1 A, IRR=250mA, TA=25°C)	trr	35	nsec

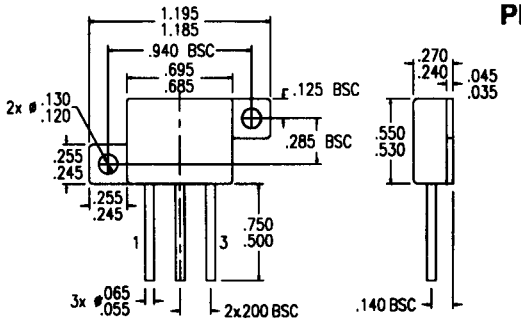
CASE OUTLINE: TO-258

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



CASE OUTLINE: TO-259

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



TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified