



PRELIMINARY

SOLID STATE DEVICES, INC

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

**SDR9103N&P
thru
SDR9105N&P**

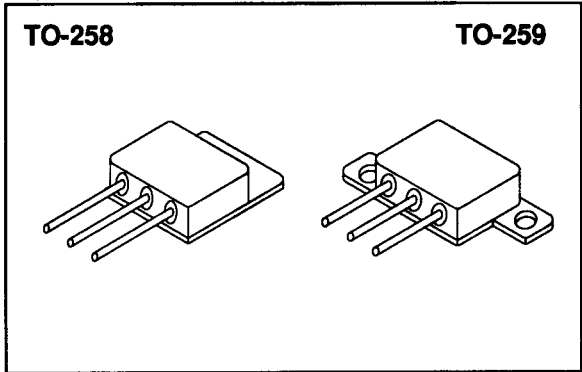
Designer's Data Sheet

**100 AMP
300-500 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



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage SDR9103N&P SDR9104N&P SDR9105N&P	VRRM VRWM VR	300 400 500	Volts
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C) note 1	IO	100	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C) note 1 & 2	IFSM	500	Amps
Operating and storage temperature	Top & Tstg	-65 to +200	°C
Maximum Thermal Resistance Junction to Case, note 1	RθJC	0.4	°C/W

note 1 Connect pins 2 & 3 together
note 2 Available in higher surge capability

SDR9103N&P thru SDR9105N&P

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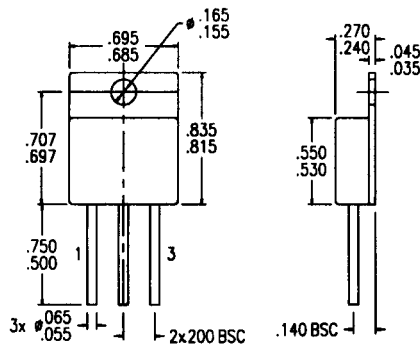
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ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 50 Adc, TA=25°C, 300µs Pulse) note 1 (IF = 100 Adc, TA=25°C, 300µs Pulse) note 1	VF	1.35 1.65	Vdc
Instantaneous Forward Voltage Drop (IF = 50 Adc, TA=100°C, 300µs Pulse) note 1 (IF = 50 Adc, TA= - 55°C, 300µs Pulse) note 1	VF	1.25 1.55	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	500	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

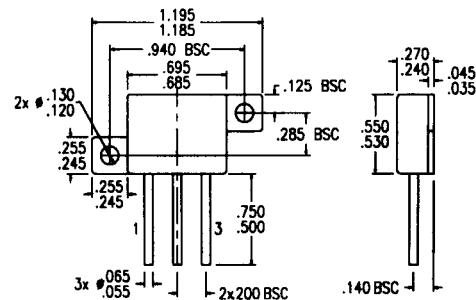


Note :

Pins 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

