

**SDR958M&Z
 thru
 SDR9511M&Z**

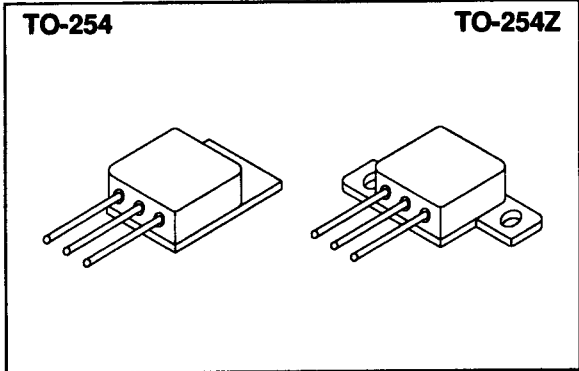
Designer's Data Sheet

**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



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage	VRRM	800	Volts
	VRWM	900	
	SDR958M&Z SDR959M&Z SDR9510M&Z SDR9511M&Z	1000	
	VR	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)note 2	IFSM	450	Amps
Operating and storage temperature	Top & Tstg	-65 to +200	°C
Maximum Thermal Resistance Junction to Case, note 1	RθJC	0.85	°C/W

note 1 Pins 2&3 connected
 note 2 Higher surge rating available

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PRELIMINARY



SOLID STATE DEVICES, INC

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

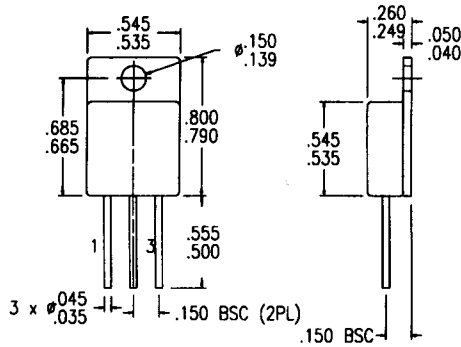
ELECTRICAL CHARACTERISTICS

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	1.50 1.75	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	1.40 1.60	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-254

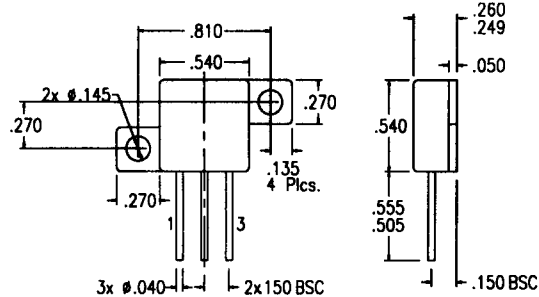
PIN 1: CATHODE
PIN 2: ANODE
PIN 3: ANODE

Note 1:
Connect
Pin 2 & 3
together.



CASE OUTLINE: TO-254Z

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



TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

