

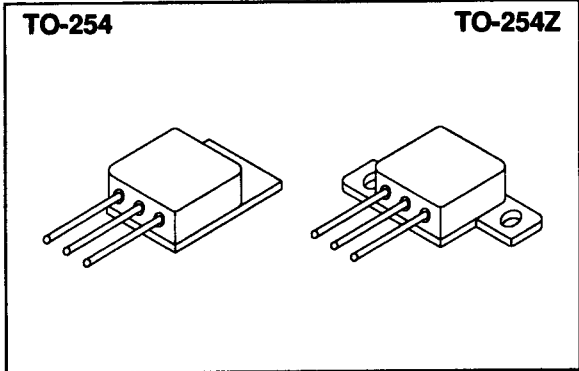
**SDR958M&Z  
 thru  
 SDR9511M&Z**

**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

# SDR958M&Z thru SDR9511M&Z

PRELIMINARY



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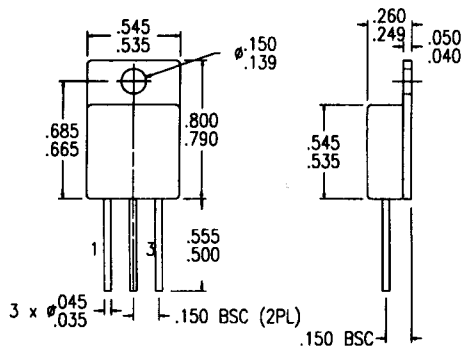
## ELECTRICAL CHARACTERISTICS

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	VF	1.50 1.75	Vdc
<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	VF	1.40 1.60	Vdc
<b>Reverse Leakage Current</b> (Rated VR, TA=25°C, 300ms pulse minimum)	IR	100	μA
<b>Reverse Leakage Current</b> (Rated VR, TA=100°C, 300ms pulse minimum)	IR	10	mA
<b>Junction Capacitance</b> (VR = 10 Vdc, TA=25°C, f= 1 MHz)	CJ	150	pf
<b>Reverse Recovery Time</b> (IF=500mA, IR=1 A, IRR=250mA, TA=25°C)	trr	80	nsec

### CASE OUTLINE: TO-254

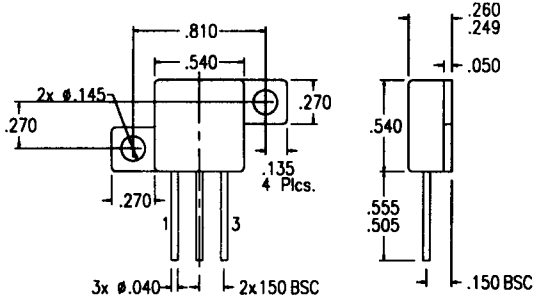
PIN 1: CATHODE  
PIN 2: ANODE  
PIN 3: ANODE

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

