



PRELIMINARY

SOLID STATE DEVICES, INC14849 Firestone Boulevard · La Mirada, CA 90638
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424**Designer's Data Sheet****FEATURES:**

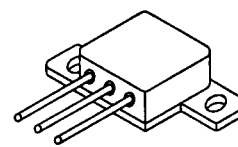
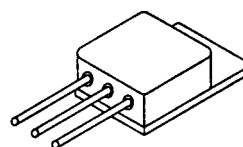
- Hyper Fast Recovery: 35 nsec Maximum
- High Surge Rating
- Low Reverse Leakage Current
- Low Junction Capacitance
- Hermetically Sealed Low Profile Package
- Gold Eutectic Die Attach available
- Ultrasonic Aluminum Wire Bonds
- Ceramic Seals for improved hermeticity available

- TX, TXV and Space Level Screening Available

**SDR953M&Z
thru
SDR955M&Z****50 AMP
300-500 VOLTS
35 nsec
HYPER FAST
RECTIFIER**

TO-254

TO-254Z

**MAXIMUM RATINGS**

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage SDR953M&Z SDR954M&Z SDR955M&Z	VRRM VRWM VR	300 400 500	Volts
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	IO	50	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C)note 1	IFSM	450	Amps
Operating and storage temperature	Top & Tstg	-65 to +200	°C
Maximum Thermal Resistance Junction to Case	RθJC	0.7	°C/W

note 1 Pins 2 & 3 connected

note 2 Available with higher surge ratings

NOTE: All specifications are subject to change without notification.
SCD's for these devices should be reviewed by SSDI prior to release.**DATA SHEET#: RH0029 B****MED**

SDR953M&Z thru SDR955M&Z

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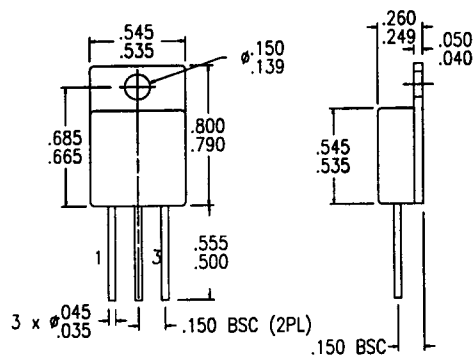
ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 25 Adc, TA=25°C, 300μs Pulse) note 1 (IF = 50 Adc, TA=25°C, 300μs Pulse) note 1	VF	1.30 1.65	Vdc
Instantaneous Forward Voltage Drop (IF = 25 Adc, TA= - 55°C, 300μs Pulse) note 1 (IF = 25 Adc, TA= 100°C, 300μs Pulse) note 1	VF	1.4 1.2	Vdc
Reverse Leakage Current (Rated VR, TA=25°C, 300μs pulse minimum)	IR	100	μA
Reverse Leakage Current (Rated VR, TA=100°C, 300μs pulse minimum)	IR	10	mA
Junction Capacitance (VR = 10 Vdc, TA=25°C, f= 1 MHz)	CJ	250	pf
Reverse Recovery Time (IF=500mA, IR=1 A, IRR=250mA, TA=25°C)	trr	35	nsec

CASE OUTLINE: TO-254

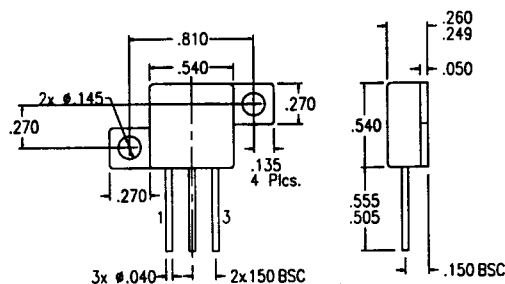
PIN 1: CATHODE
PIN 2: ANODE
PIN 3: ANODE

NOTE 1
Connect pins
2 & 3 together
in application.



CASE OUTLINE: TO-254Z

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



TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

