



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, CA 90638

Phone: (562) 404-7855 * Fax: (562) 404-1773

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Designer's Data Sheet

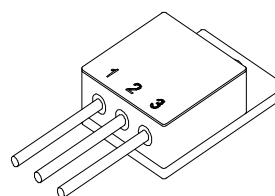
FEATURES:

- Soft Recovery Diode
- Ultra Fast Recovery: 80 nsec maximum
- Available in faster recovery versions
- High Surge Rating
- Low Reverse Leakage Current
- 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

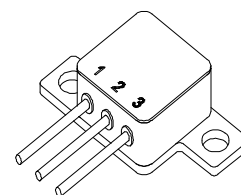
**SDR936M&Z
thru
SDR939M&Z**

**30 AMPS
600 - 900 VOLTS
80 nsec
ULTRA FAST
RECTIFIER**

TO-254(M)



TO-254(Z)



MAXIMUM RATINGS		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	SDR936M&Z SDR937M&Z SDR938M&Z SDR939M&Z	V_{RRM} V_{RWM} V_R	600 700 800 900	Volts
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave, $T_A=25^{\circ}\text{C}$)		I_O	30	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A=25^{\circ}\text{C}$)		I_{FSM}	500*	Amps
Operating and Storage Temperature Range		T_{OP} T_{stg}	-65 to 200	$^{\circ}\text{C}$
Maximum Thermal Resistance		R_{qJL} R_{qJE}	6 4	$^{\circ}\text{C/W}$

Note: 1/ * Pin 2&3 connected together; available with higher surge capacity.

2/ For best results, Pin 2&3 must be connected together in the application.

NOTE: All specifications are subject to change without notification.
SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: RU0073B

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SDR936M&Z thru SDR939M&Z

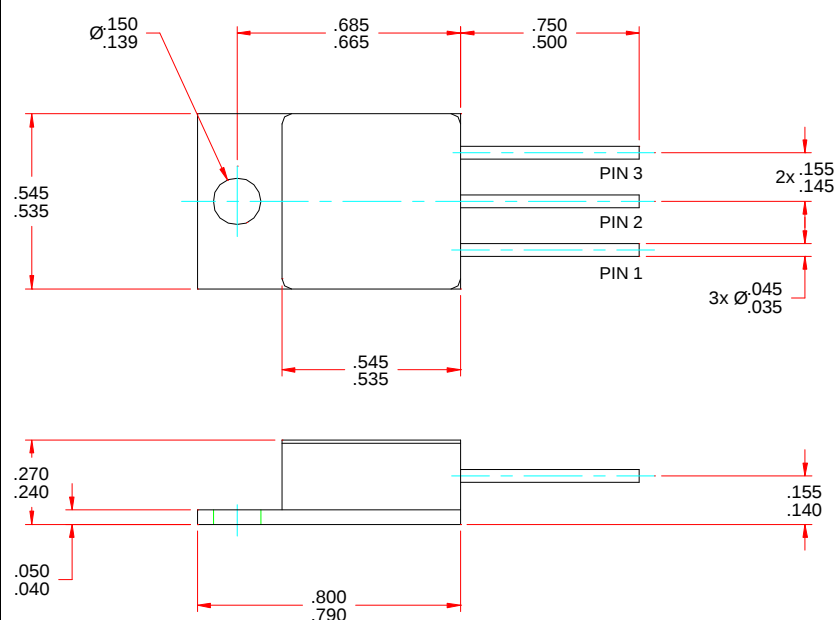
ELECTRICAL CHARACTERISTICS		Symbol	Min	Max	Unit
Instantaneous Forward Voltage Drop (IF=15 Adc, TA = 25°C, 300ms Pulse) (IF=30 Adc, TA = 25°C, 300ms Pulse)		VF	—	1.25	Volts
			—	1.40	Volts
Instantaneous Forward Voltage Drop (IF=15 Adc,TA = -55°C, 300ms Pulse) (IF=15 Adc,TA = 100°C, 300ms Pulse)		VF	—	1.15	Volts
			—	1.35	Volts
Reverse Leakage Current (Rated VR, TA 300ms Pulse minimum)	TA = 25°C TA = 100°C	IR1	—	100	mA
		IR2	—	100	mA
Junction Capacitance (VR = 10 VDC, TA = 25°C, f = 1 MHz)		CJ	—	150	pF
Reverse Recovery Time (IF=500 mA, IR=1 A, IRR=250 mA, TA = 25°C)		trr	—	80	ns

Case Outline: TO-254(M)

Pin1: Cathode

Pin 2: Anode

Pin 3: Anode

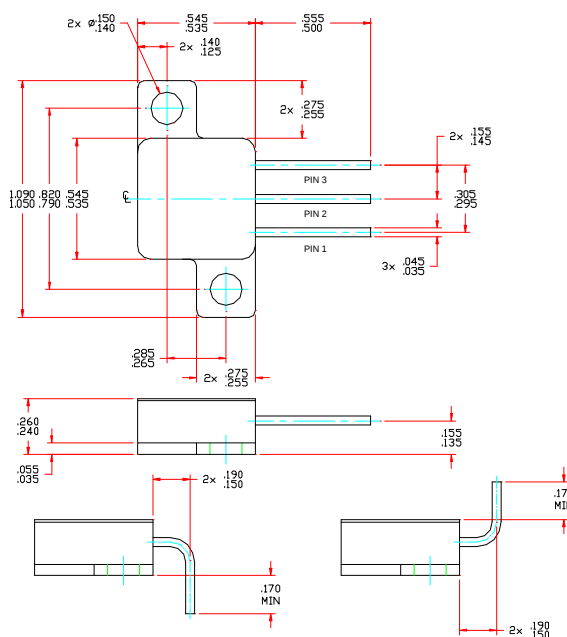


Case Outline: TO-254(Z)

Pin 1: Cathode

Pin 2: Anode

Pin 3: Anode



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