



PRELIMINARY

SOLID STATE DEVICES, INC

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

**SDR936DM&Z  
 thru  
 SDR939DM&Z**

**Designer's Data Sheet**

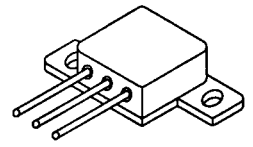
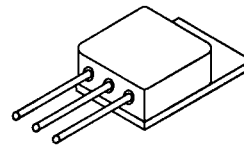
**FEATURES:**

- Soft Recovery Diode
- Ultrafast 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

**30 AMP  
 600-900 VOLTS  
 80 nsec  
 ULTRA FAST  
 DOUBLER**

TO-254

TO-254Z



**MAXIMUM RATINGS**

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage	VRRM VRWM VR	600 700 800 900	Volts
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	Io	30/LEG	Amps
Peak Surge Current (per leg) (8.3 ms Pulse, Half Sine Wave, TA=25°C)	IFSM	250/LEG	Amps
Operating and storage temperature	Top & Tstg	-65 to +200	°C
Maximum Thermal Resistance Junction to Case, each individual diode	RθJC	2.0	°C/W

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

**DATA SHEET#: RU0163 C**

# SDR936DM&Z thru SDR939DM&Z

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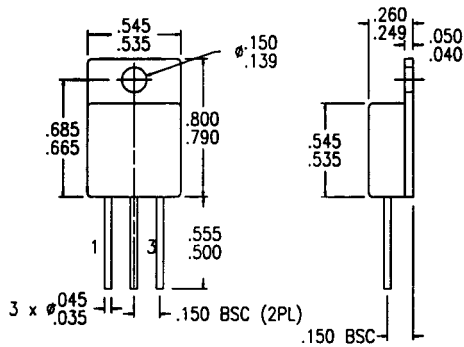
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## ELECTRICAL CHARACTERISTICS (Per Leg)

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 15 Adc, TA=25°C, 300ms Pulse)	VF	1.40	Vdc
Instantaneous Forward Voltage Drop (IF = 15 Adc, TA=100°C, 300ms Pulse) (IF = 15 Adc, TA= - 55°C, 300ms Pulse)	VF	1.30 1.35	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	100	pf
Reverse Recovery Time (IF=500mA, IR=1 A, IRR=250mA, TA=25°C)	trr	80	nsec

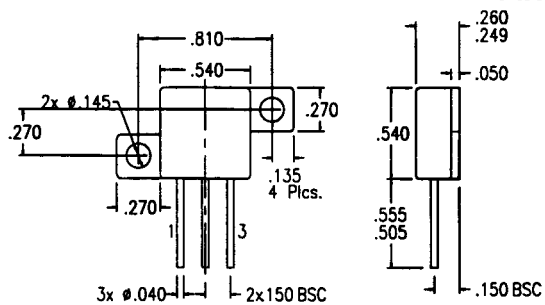
### CASE OUTLINE: TO-254

PIN 1: CATHODE  
PIN 2: AC  
3: ANODE



### CASE OUTLINE: TO-254Z

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



## TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

