

**SDR936CTM&Z
thru
SDR939CTM&Z**

Designer's Data Sheet

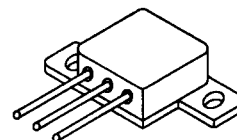
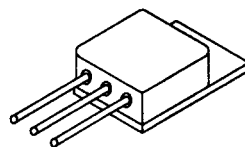
FEATURES:

- 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
CENTERTAP RECTIFIER**

TO-254

TO-254Z



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage SDR936CTM&Z SDR937CTM&Z SDR938CTM&Z SDR939CTM&Z	VRRM VRWM VR	600 700 800 900	Volts
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	IO	60	Amps
Peak Surge Current (per leg) (8.3 ms Pulse, Half Sine Wave, TA=25°C)	IFSM	500*	Amps
Operating and storage temperature	Top & Tstg	-65 to +200	°C
Maximum Thermal Resistance Junction to Case, each individual diode Junction to Case, note 1	RθJC	1.3 0.75	°C/W

note 1 Both legs tied together

* Available with higher surge capability

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PRELIMINARY



SOLID STATE DEVICES, INC

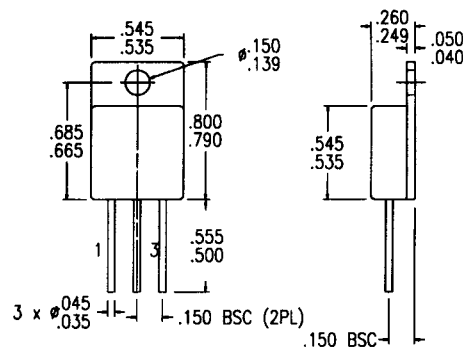
14849 Firestone Boulevard · La Mirada, CA 90638
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

ELECTRICAL CHARACTERISTICS (Per Leg)

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 15 Adc, TA=25°C, 300ms Pulse) (IF = 30 Adc, TA=25°C, 300ms Pulse)	VF	1.25 1.40	Vdc
Instantaneous Forward Voltage Drop (IF = 15 Adc, TA=100°C, 300ms Pulse) (IF = 15 Adc, TA= - 55°C, 300ms Pulse)	VF	1.15 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

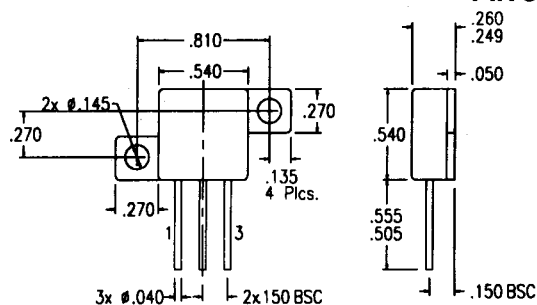
CASE OUTLINE: TO-254

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



CASE OUTLINE: TO-254Z

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



TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

