



PRELIMINARY

SOLID STATE DEVICES, INC

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

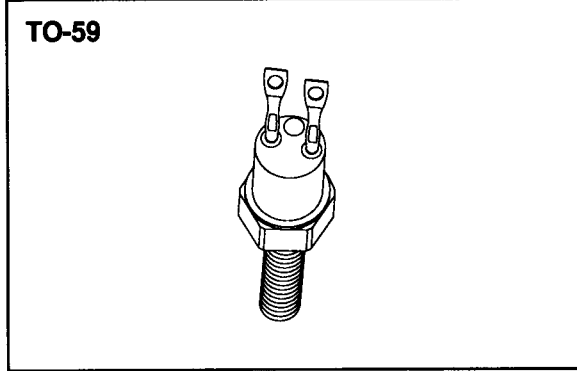
**SDR627/59  
thru  
SDR628/59**

**Designer's Data Sheet**

**20 AMPS  
700-800 VOLTS  
60 nsec  
ULTRA FAST  
RECTIFIER**

**FEATURES:**

- Ultrafast Recovery: 60 nsec Maximum
- High Surge Rating
- Low Reverse Leakage Current
- Low Junction Capacitance
- Hermetically Sealed Package
- Gold Eutectic Die Attach
- Ultrasonic Aluminum Wire Bonds
  
- TX, TXV and Space Level Screening Available



**MAXIMUM RATINGS**

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage  SDR627/59 SDR628/59	VRRM	700	Volts
	VRWM	800	
	VR		
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	IO	20	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C)	IFSM	200	Amps
Operating and storage temperature	Top & Tstg	-65 to +200	°C
Maximum Thermal Resistance Junction to Case	RθJC	2.4	°C/W

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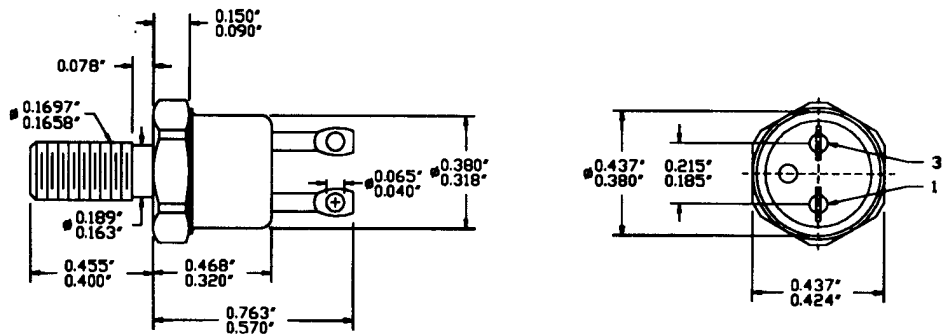
**ELECTRICAL CHARACTERISTICS**

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
<b>Instantaneous Forward Voltage Drop</b> (IF = 10 Adc, TA=25°C, 300ms Pulse) (IF = 20 Adc, TA=25°C, 300ms Pulse)	<b>VF</b>	1.30 1.55	<b>Vdc</b>
<b>Instantaneous Forward Voltage Drop</b> (IF = 10 Adc, TA=100°C, 300ms Pulse) (IF = 10 Adc, TA= - 55°C, 300ms Pulse)	<b>VF</b>	1.22 1.40	<b>Vdc</b>
<b>Reverse Leakage Current</b> (Rated VR, TA=25°C, 300ms pulse minimum)	<b>IR</b>	50	<b>μA</b>
<b>Reverse Leakage Current</b> (Rated VR, TA=100°C, 300ms pulse minimum)	<b>IR</b>	5	<b>mA</b>
<b>Junction Capacitance</b> (VR = 10 Vdc, TA=25°C, f= 1 MHz )	<b>CJ</b>	70	<b>pf</b>
<b>Reverse Recovery Time</b> (IF=500mA, IR=1 A, IRR=250mA, TA=25°C)	<b>trr</b>	60	<b>nsec</b>

**CASE OUTLINE: TO-59**

**PIN OUT:**

**PIN 1: ANODE  
PIN 3: CATHODE**



**TYPICAL OPERATING CURVES**

TA=25°C Unless otherwise specified

