



PRELIMINARY

SOLID STATE DEVICES, INC

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

**SSR1645/59**

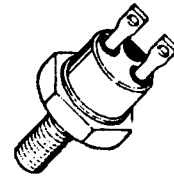
**20 AMP  
45 VOLTS  
SCHOTTKY  
RECTIFIER**

**Designer's Data Sheet**

**FEATURES:**

- Low Reverse Leakage
- Low Forward Voltage Drop
- Guard Ring for Overvoltage protection
- Isolated Hermetically Sealed Power Package
- Eutectic Die Attach
- 175°C Operating Temperature
  
- TX, TXV and Space Level Screening Available

TO-59



**MAXIMUM RATINGS**

RATING	SYMBOL	VALUE	UNIT
<b>Peak Repetitive Reverse and DC Blocking Voltage</b>	VRRM	45	Volts
	VRWM		
	VR		
<b>Average Rectified Forward Current</b> (Resistive Load, 60Hz, Sine Wave, TA=25°C)	IO	20	Amps
<b>Peak Surge Current</b> (8.3 ms Pulse, Half Sine Wave Superimposed on IO, allow junction to reach equilibrium between pulses, TA=25°C)	IFSM	300	Amps
<b>Operating and storage temperature</b>	Top & Tstg	-65 to +175	°C
<b>Maximum Thermal Resistance</b> Junction to Case	RθJC	1.0	°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#:RS0009 B**

**MED**

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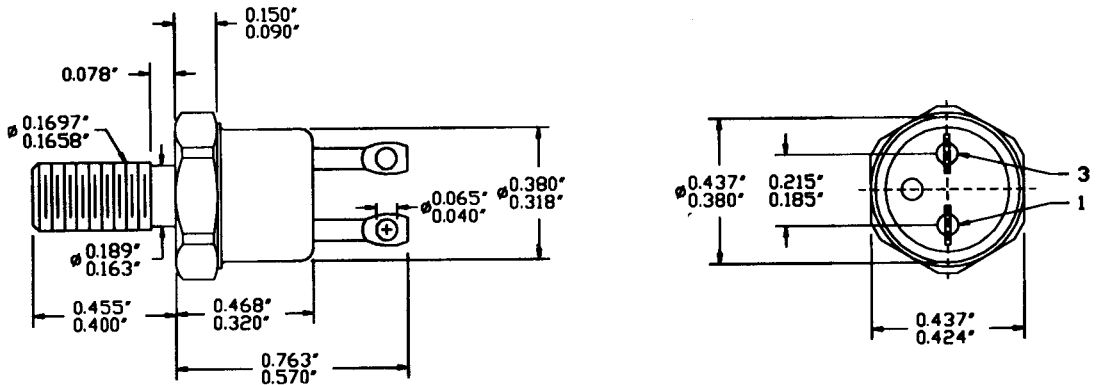
## ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
<b>Instantaneous Forward Voltage Drop</b> (IF = 5 Adc, TA=25°C, 300µs Pulse) (IF = 10 Adc, TA=25°C, 300µs Pulse) (IF = 20 Adc, TA=25°C, 300µs Pulse)	VF1	0.50 0.55 0.70	Vdc
<b>Instantaneous Forward Voltage Drop</b> (IF = 10 Adc, TA= - 55°C, 300µs Pulse)	VF2	0.62	Vdc
<b>Reverse Leakage Current</b> (Rated VR, TA=25°C, 300µs pulse minimum)	IR1	200	µA
<b>Reverse Leakage Current</b> (Rated VR, TA=100°C, 300µs pulse minimum)	IR2	15	mA
<b>Junction Capacitance</b> (VR = 10 Vdc, TA=25°C, f= 1 MHz)	CJ	800	pf

## CASE OUTLINE: TO-59

PIN OUT:

PIN 1: ANODE  
 PIN 3: CATHODE  
 STUD: N/C



## TYPICAL OPERATING CURVES

(TA=25°C unless otherwise specified)

