



PRELIMINARY

SSR4045CTC

SOLID STATE DEVICES, INC

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

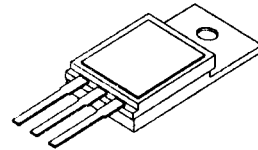
## Designer's Data Sheet

### FEATURES:

- Low Reverse Leakage
- Low Forward Voltage Drop
- Guard Ring for Overvoltage protection
- Isolated Hermetically Sealed Power Package
- Low inductance leads
- Ideal for High Frequency Applications
- Custom Lead Forming Available
- Eutectic Die Attach
- 175°C Operating Temperature
- Also available in following configurations:
  - Common Anode: SSR4045CAC
  - Doubler: SSR4045DC
- TX, TXV, and Space Level Screening Available

**40 AMP  
45 VOLTS  
POSITIVE CENTERTAP  
SCHOTTKY  
RECTIFIER**

CERAMIC TO-254



### MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage	VRRM	45	Volts
	VRWM		
	VR		
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C) <i>note 1</i>	Io	40	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on Io, allow junction to reach equilibrium between pulses, TA=25°C) <i>note 1</i>	IFSM	600	Amps
Operating and storage temperature	Top & Tstg	-65 to +175	°C
Maximum Thermal Resistance Junction to Case, <i>note 1</i>	RθJC	0.9	°C/W

NOTE 1: Both legs tied together

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

DATA SHEET #: RS0033 B

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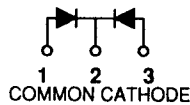
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## ELECTRICAL CHARACTERISTICS (Per Leg)

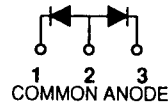
CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
<b>Instantaneous Forward Voltage Drop</b> (IF = 5 Adc, TA=25°C, 300µs Pulse) (IF = 10 Adc, TA=25°C, 300µs Pulse) (IF = 20 Adc, TA=25°C, 300µs Pulse)	<b>VF1</b>	0.50 0.60 0.80	Vdc
<b>Instantaneous Forward Voltage Drop</b> (IF = 10 Adc, TA= - 55°C, 300µs Pulse)	<b>VF2</b>	0.67	Vdc
<b>Reverse Leakage Current</b> (Rated VR, TA=25°C, 300µs pulse minimum)	<b>IR1</b>	200	µA
<b>Reverse Leakage Current</b> (Rated VR, TA=100°C, 300µs pulse minimum)	<b>IR2</b>	15	mA
<b>Junction Capacitance</b> (VR = 10 Vdc, TA=25°C, f= 1 MHz )	<b>CJ</b>	800	pf

### CASE OUTLINE: CERAMIC TO-254

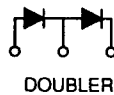
SSR4045CTC  
 PIN 1: ANODE 1  
 PIN 2: CATHODE  
 PIN 3: ANODE 2



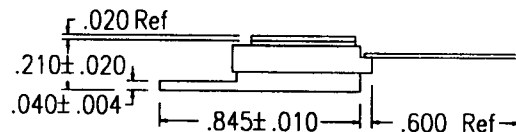
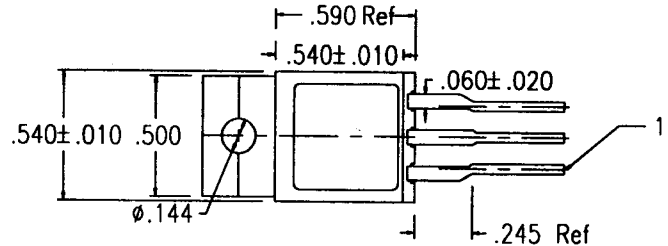
SSR4045CAC  
 PIN 1: CATHODE 1  
 PIN 2: ANODE  
 PIN 3: CATHODE 2



SSR4045DC (note 2)  
 PIN 1: CATHODE  
 PIN 2: CATHODE 1/ANODE 2  
 PIN 3: ANODE



NOTE 2: Consult factory for Doubler Specification



## TYPICAL OPERATING CURVES

(TA=25°C unless otherwise specified)

