



PRELIMINARY

SOLID STATE DEVICES, INC

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

SSR8045CTN

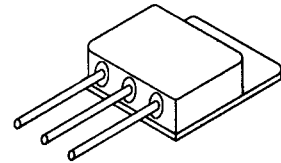
80 AMP  
45 VOLTS  
POSTIVE CENTERTAP  
SCHOTTKY  
RECTIFIER

### Designer's Data Sheet

#### FEATURES:

- Low Reverse Leakage
- Low Forward Voltage Drop
- Guard Ring for Overvoltage protection
- Isolated Hermetically Sealed Power Package
- Available with Ceramic Seals
- Custom Lead Forming Available
- Eutectic Die Attach
- 175°C Operating Temperature
- Also available in the following configurations:
  - Common Anode: SSR8045CAN
  - Doubler: SSR8045DN
- TX, TXV, and Space Level Screening Available

TO-258



### MAXIMUM RATINGS

| RATING   | SYMBOL     | VALUE       | UNIT  |
|--|------------|-------------|-------|
| Peak Repetitive Reverse and DC Blocking Voltage  | VRRM       | 45          | Volts |
|  | VRWM       |             |       |
|  | VR         |             |       |
| Average Rectified Forward Current<br>(Resistive Load, 60Hz, Sine Wave, TA=25°C) <i>note 1</i>  | Io         | 80          | Amps  |
| Peak Surge Current<br>(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       | 1200        | Amps  |
| Operating and storage temperature  | Top & Tstg | -65 to +175 | °C    |
| Maximum Thermal Resistance<br>Junction to Case, <i>note 1</i>  | RθJC       | 0.5         | °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 #: RS0063 A

MED

# SSR8045CTN

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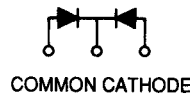
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## ELECTRICAL CHARACTERISTICS (Per Leg)

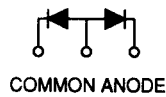
| CHARACTERISTICS  | SYMBOL     | MAXIMUM              | UNIT |
|--|------------|----------------------|------|
| <b>Instantaneous Forward Voltage Drop</b><br>(IF = 10 Adc, TA=25°C, 300µs Pulse)<br>(IF = 20 Adc, TA=25°C, 300µs Pulse)<br>(IF = 40 Adc, TA=25°C, 300µs Pulse) | <b>VF1</b> | 0.50<br>0.60<br>0.75 | Vdc  |
| <b>Instantaneous Forward Voltage Drop</b><br>(IF = 20 Adc, TA= - 55°C, 300µs Pulse)  | <b>VF2</b> | 0.67                 | Vdc  |
| <b>Reverse Leakage Current</b><br>(Rated VR, TA=25°C, 300µs pulse minimum)   | <b>IR1</b> | 400                  | µA   |
| <b>Reverse Leakage Current</b><br>(Rated VR, TA=100°C, 300µs pulse minimum)  | <b>IR2</b> | 30                   | mA   |
| <b>Junction Capacitance</b><br>(VR = 10 Vdc, TA=25°C, f= 1 MHz )   | <b>CJ</b>  | 1600                 | pf   |

### CASE OUTLINE: TO-258

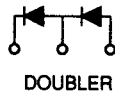
SSR8045CTN:  
 PIN 1: ANODE 1  
 PIN 2: CATHODE  
 PIN 3: ANODE 2



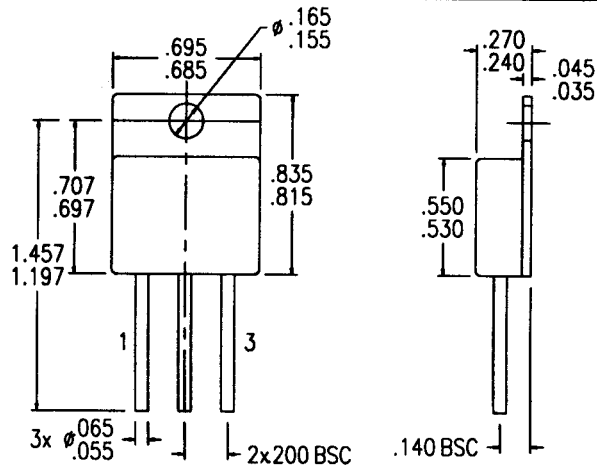
SSR8045CAN  
 PIN 1: CATHODE 1  
 PIN 2: ANODE  
 PIN 3: CATHODE 2



SSR8045DN: (note 2)  
 PIN 1: CATHODE  
 PIN 2: AC  
 PIN 3: ANODE



NOTE 2: Consult the factory for Doubler specification



## TYPICAL OPERATING CURVES

(TA=25°C unless otherwise specified)

