



# Solid State Devices, Inc.

14701 Firestone Blvd \* La Mirada, CA 90638  
Phone: (562) 404-4474 \* Fax: (562) 404-1773  
ssdi@ssdi-power.com \* [www.ssdi-power.com](http://www.ssdi-power.com)

# SSR1045G

## 10 AMP SURFACE MOUNT SCHOTTKY RECTIFIER 45 VOLTS

### Designer's Data Sheet

**Part Number / Ordering Information<sup>1/</sup>**

**SSR 10 45 G**

- Current** 10 = 10 A
- Voltage** 45 = 45 V
- Package** G = Cerpack
- Screening<sup>2/</sup>**
  - = Not Screened
  - TX = TX Level
  - TXV = TXV Level
  - S = S Level

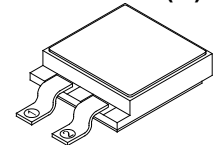
- FEATURES:**
- Low reverse leakage
  - Low forward voltage drop
  - Hermetically sealed surface mount package
  - Guard ring for overvoltage protection
  - Eutectic die attach
  - 175°C operating temperature
  - Available in higher voltages up to 200V – consult factory
  - Custom lead forming available
  - TX, TXV, and S level screening available - consult factory<sup>2/</sup>

| MAXIMUM RATINGS <sup>3/</sup>  |  | Symbol                          | Value       | Unit  |
|--|--|---------------------------------|-------------|-------|
| Peak Repetitive Reverse and DC Blocking Voltage  |  | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 45          | Volts |
| Average Rectified Forward Current<br>(Resistive load, 60 Hz, sine wave, $T_A = 25^\circ\text{C}$ )   |  | $I_O$                           | 10          | Amps  |
| Peak Surge Current<br>(8.3 ms pulse, half sine wave superimposed on $I_O$ , allow junction to reach equilibrium between pulses, $T_A = 25^\circ\text{C}$ ) |  | $I_{FSM}$                       | 150         | Amps  |
| Operating & Storage Temperature  |  | $T_{OP}$ & $T_{stg}$            | -65 to +175 | °C    |
| Maximum Thermal Resistance<br>(Junction to Case)   |  | $R_{\theta JC}$                 | 1.0         | °C/W  |

**NOTES:**

- 1/ For ordering information, price, and availability - contact factory.
- 2/ Screening based on MIL-PRF-19500. Screening flows available on request.
- 3/ Unless otherwise specified, all electrical characteristics @25°C.

**CERPACK (G)**





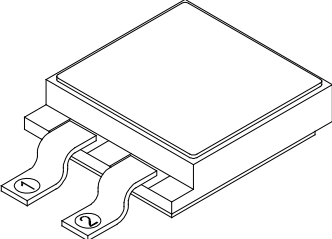
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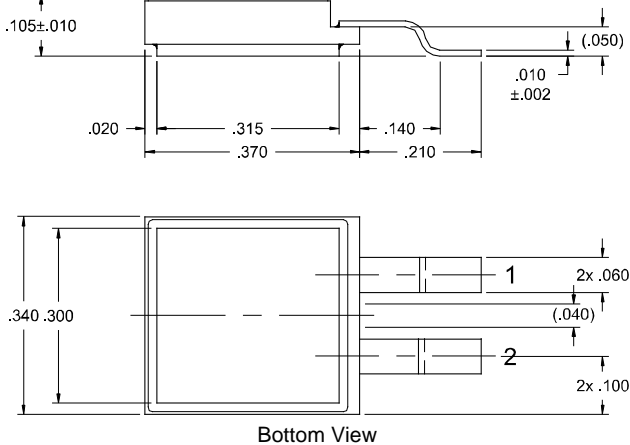
# SSR1045G

| ELECTRICAL CHARACTERISTICS <sup>3/</sup>   |                       | Symbol          | Max  | Units           |
|--|-----------------------|-----------------|------|-----------------|
| <b>Instantaneous Forward Voltage Drop</b><br>(T <sub>A</sub> =25°C, 300μsec pulse)                       | I <sub>F</sub> = 5 A  | V <sub>F1</sub> | 0.52 | V <sub>DC</sub> |
|  | I <sub>F</sub> = 10 A | V <sub>F2</sub> | 0.63 |                 |
| <b>Instantaneous Forward Voltage Drop</b><br>(T <sub>A</sub> =-55°C, 300μsec pulse)                      | I <sub>F</sub> = 5 A  | V <sub>F3</sub> | 0.58 | V <sub>DC</sub> |
| <b>Reverse Leakage Current</b><br>(Rated V <sub>R</sub> , T <sub>A</sub> = 25°C, 300μsec pulse minimum)  |                       | I <sub>R1</sub> | 100  | μA              |
| <b>Reverse Leakage Current</b><br>(Rated V <sub>R</sub> , T <sub>A</sub> = 100°C, 300μsec pulse minimum) |                       | I <sub>R2</sub> | 10   | mA              |
| <b>Junction Capacitance</b><br>(V <sub>R</sub> = 10V, f = 1MHz, T <sub>A</sub> = 25°C)                   |                       | C <sub>J</sub>  | 400  | pF              |

**Package Outline: CERPACK**



PIN OUT:  
 PIN 1: ANODE 1  
 PIN 2: ANODE 2  
 TAB: CATHODE



Bottom View