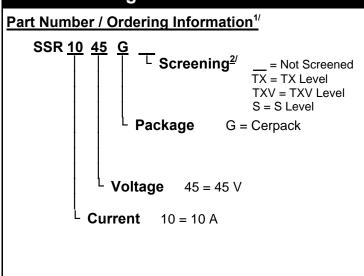


14701 Firestone Blvd \* La Mirada, CA 90638 Phone: (562) 404-4474 \* Fax: (562) 404-1773 ssdi@ssdi-power.com \* www.ssdi-power.com

### **Designer's Data Sheet**



## **SSR1045G**

# 10 AMP SURFACE MOUNT SCHOTTKY RECTIFIER 45 VOLTS

#### **FEATURES:**

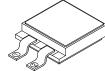
- Low reverse leakage
- Low forward voltage drop
- Hermetically sealed surface mount package
- Guard ring for overvoltage protection
- Eutectic die attach
- 175°C operating temperature
- Available in higher voltages up to 200V consult factory
- Custom lead forming available
- TX, TXV, and S level screening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

| MAXIMUM RATINGS <sup>3/</sup>  |  | Symbol   | Value       | Unit  |
|--|--|--|-------------|-------|
| Peak Repetitive Reverse and DC Blocking Voltage  |  | $egin{array}{c} oldsymbol{V_{RMM}} \ oldsymbol{V_{R}} \end{array}$ | 45          | Volts |
| Average Rectified Forward Current (Resistive load, 60 Hz, sine wave, T <sub>A</sub> = 25°C)  |  | Io   | 10          | Amps  |
| Peak Surge Current (8.3 ms pulse, half sine wave superimposed on $I_O$ , allow junction to reach equilibrium between pulses, $T_A = 25^{\circ}C$ ) |  | I <sub>FSM</sub>   | 150         | Amps  |
| Operating & Storage Temperature  |  | T <sub>OP</sub> & T <sub>stg</sub>                                 | -65 to +175 | °C    |
| Maximum Thermal Resistance<br>(Junction to Case)   |  | R <sub>eJC</sub>   | 1.0         | °C/W  |

#### NOTES:

- 1/ For ordering information, price, and availability contact factory.
- $\underline{2}$ / 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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| ELECTRICAL CHARACTERISTICS3/   |                             | Symbol                                 | Max          | Units           |
|--|-----------------------------|--|--------------|-----------------|
| Instantaneous Forward Voltage Drop (T <sub>A</sub> =25°C, 300μsec pulse)           | $I_F = 5 A$<br>$I_F = 10 A$ | $oldsymbol{V_{F1}}{oldsymbol{V_{F2}}}$ | 0.52<br>0.63 | V <sub>DC</sub> |
| Instantaneous Forward Voltage Drop (T <sub>A</sub> =-55°C, 300μsec pulse)          | I <sub>F</sub> = 5 A        | $V_{F3}$                               | 0.58         | V <sub>DC</sub> |
| Reverse Leakage Current (Rated $V_R$ , $T_A = 25$ °C, $300\mu sec$ pulse minimum)  |                             | I <sub>R1</sub>                        | 100          | μА              |
| Reverse Leakage Current (Rated $V_R$ , $T_A = 100$ °C, $300\mu$ sec pulse minimum) |                             | I <sub>R2</sub>                        | 10           | mA              |
| Junction Capacitance $(V_R = 10V, f = 1MHz, T_A = 25^{\circ}C)$                    |                             | CJ                                     | 400          | pF              |

