

SR280 THRU SR2200  
**Schottky Barrier Diodes**

Revision: A

**General Description**

This Schottky diode is for use in low voltage, high frequency rectifier of switching mode power supplier, DC/DC converters and polarity protection application.

- Very small conduction losses
- Low Forward Voltage Drop
- High forward surge capacity

**Features**

- Case: DO-15, molded epoxy body
- Terminal: Matte tin plated leads
- Polarity: See mark on body

**Maximum Ratings** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

| Parameter   | Symbol         | SR280      | SR2100 | SR2150 | SR2200 | Units            |
|---|----------------|------------|--------|--------|--------|------------------|
| Maximum repetitive peak reverse voltage   | $V_{RRM}$      | 80         | 100    | 150    | 200    | V                |
| Maximum RMS voltage   | $V_{RMS}$      | 56         | 70     | 105    | 140    | V                |
| Maximum DC blocking voltage   | $V_{DC}$       | 80         | 100    | 150    | 200    | V                |
| Maximum average forward rectifier current   | $I_{F(AV)}$    | 2.0        |        |        |        | A                |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load | $I_{FSM}$      | 50         |        |        |        | A                |
| Operating Junction Temperature Range  | $T_J, T_{STG}$ | -50 to 125 |        |        |        | $^\circ\text{C}$ |

**Electrical Characteristics** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

| Parameter                                      | Condition               | Symbol | SR280-SR2200 | Units |
|--|-------------------------|--------|--------------|-------|
| Maximum instantaneous forward voltage          | $I_F=2A$                | $V_F$  | 0.85         | V     |
| Maximum DC reverse current at blocking voltage | $T_C=25^\circ\text{C}$  | $I_R$  | 0.5          | mA    |
|  | $T_C=100^\circ\text{C}$ |        | 20           |       |
| Typical Junction Capacitance                   | 4.0V,<br>1.0MHz         | $C_J$  | 180          | pF    |

Note

1. Pulse test: 300  $\mu\text{s}$  pulse width, 1% duty cycle

**Thermal Characteristic** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

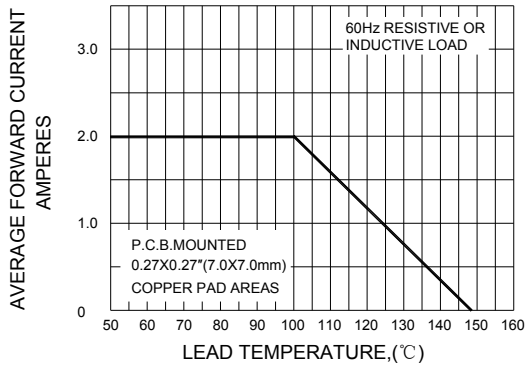
| Parameter                  | Symbol                | SR280 THRU SR2200 | Units              |
|----------------------------|-----------------------|-------------------|--------------------|
| Typical Thermal resistance | $R_{\theta JA}^{(1)}$ | 45                | $^\circ\text{C/W}$ |

Note

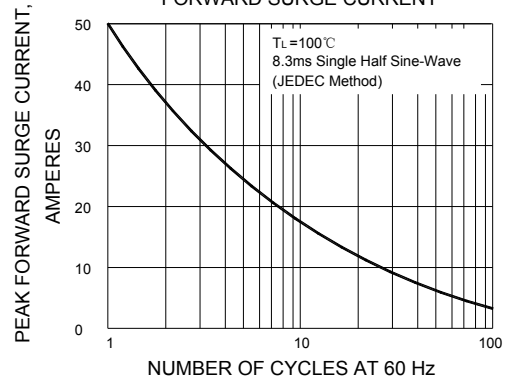
1. Thermal resistance from junction to lead vertical PCB mounted 0.375" (9.5 mm) lead length with 1.5"  $\times$  1.5" (38 mm  $\times$  38mm) copper pads

Ratings and Characteristics Curves ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

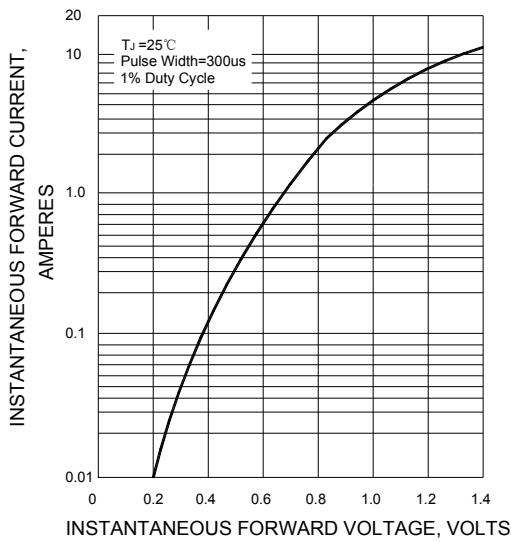
F1G.1-FORWARD CURRENT DERATING CURVE



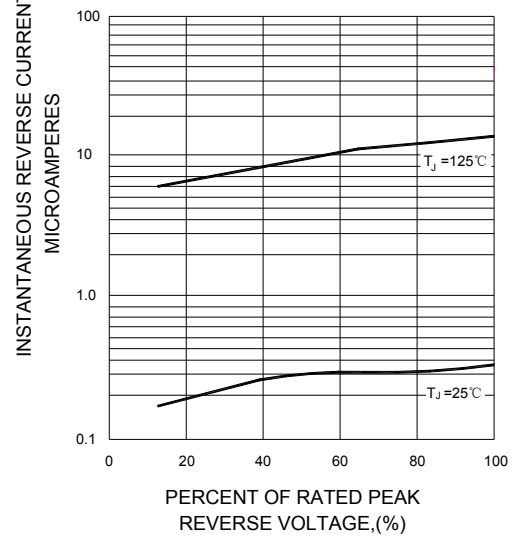
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



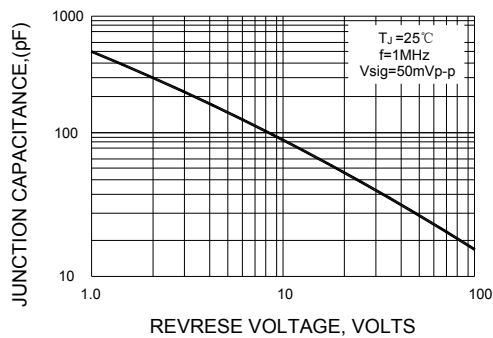
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS

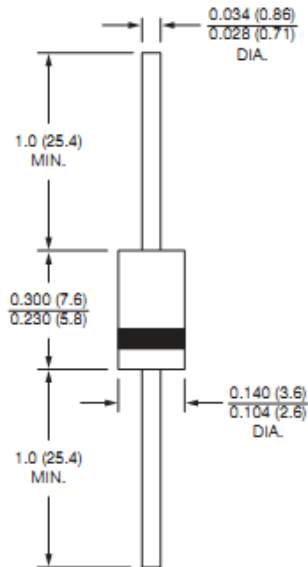


F1G.5-TYPICAL JUNCTION CAPACITANCE



Package Outline Dimensions in inches and millimeters

DO-15(DO-204AC)



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