

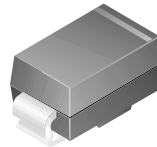


# SS12 - S100

SS12-S100

## Features

- Glass passivated junctions.
- High current capability, low  $V_F$ .
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.



**SMA/DO-214AC**  
COLOR BAND DENOTES CATHODE

## Schottky Rectifiers

### Absolute Maximum Ratings\*

$T_A = 25^\circ\text{C}$  unless otherwise noted

| Symbol      | Parameter  | Value       |    |    |    |    |    |    |     | Units            |
|-------------|--|-------------|----|----|----|----|----|----|-----|------------------|
|             |  | 12          | 13 | 14 | 15 | 16 | 18 | 19 | 100 |                  |
| $V_{RRM}$   | Maximum Repetitive Reverse Voltage   | 20          | 30 | 40 | 50 | 60 | 80 | 90 | 100 | V                |
| $I_{F(AV)}$ | Average Rectified Forward Current<br>.375 " lead length @ $T_A = 75^\circ\text{C}$ | 1.0         |    |    |    |    |    |    |     | A                |
| $I_{FSM}$   | Non-repetitive Peak Forward Surge Current<br>8.3 ms Single Half-Sine-Wave          | 40          |    |    |    |    |    |    |     | A                |
| $T_{stg}$   | Storage Temperature Range  | -65 to +150 |    |    |    |    |    |    |     | $^\circ\text{C}$ |
| $T_J$       | Operating Junction Temperature   | -65 to +125 |    |    |    |    |    |    |     | $^\circ\text{C}$ |

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Thermal Characteristics

| Symbol          | Parameter                                 | Value | Units              |
|-----------------|---|-------|--------------------|
| $P_D$           | Power Dissipation                         | 1.1   | W                  |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient * | 88    | $^\circ\text{C/W}$ |

\*Device mounted on FR-4 PCB 0.013 mm.

### Electrical Characteristics

$T_A = 25^\circ\text{C}$  unless otherwise noted

| Symbol | Parameter  | Device |    |     |    |     |    |    |     | Units    |
|--------|--|--------|----|-----|----|-----|----|----|-----|----------|
|        |  | 12     | 13 | 14  | 15 | 16  | 18 | 19 | 100 |          |
| $V_F$  | Forward Voltage @ 1.0 A  | 500    |    | 700 |    | 850 |    |    |     | mV       |
| $I_R$  | Reverse Current @ rated $V_R$<br>$T_A = 25^\circ\text{C}$<br>$T_A = 100^\circ\text{C}$ | 0.2    |    |     |    | 10  |    |    |     | mA<br>mA |

Typical Characteristics

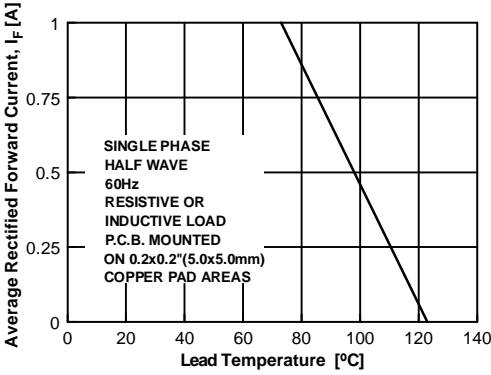


Figure 1. Forward Current Derating Curve

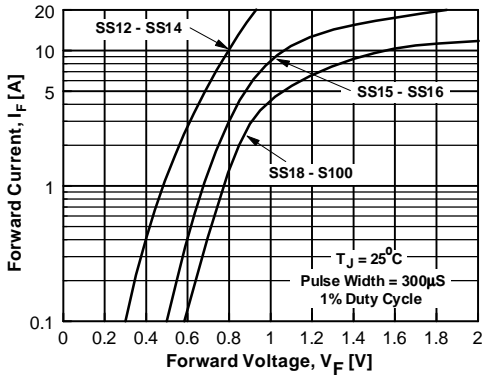


Figure 2. Forward Voltage Characteristics

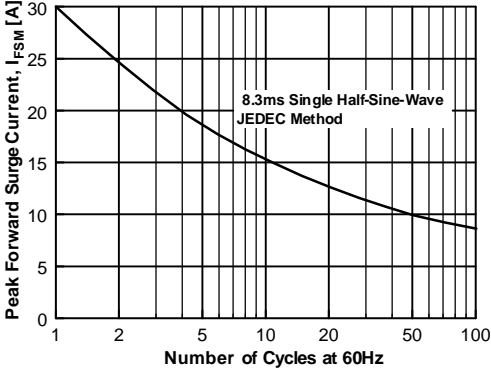


Figure 3. Non-Repetitive Surge Current

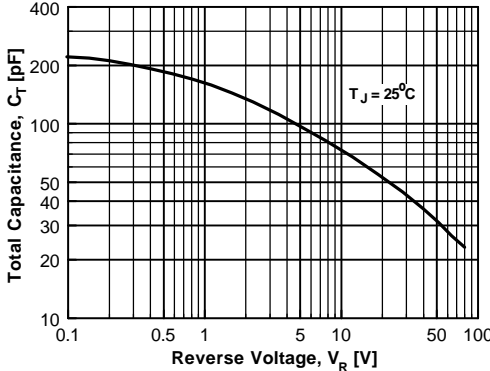


Figure 4. Total Capacitance

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| DenseTrench <sup>TM</sup>         | GTO <sup>TM</sup>                | Power247 <sup>TM</sup>           | SuperSOT <sup>TM</sup> -6    |                   |
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