

SS22 thru SS210

SMD 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.

- Low power loss, high efficiency
- Low Forward Voltage Drop
- High forward surge capacity

Features

- Case: SMA, 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 | SS22 | SS23 | SS24 | SS25 | SS26 | SS28 | SS29 | SS210 | Unit |
|---|----------------|------------|------|------|------|------|------|------|-------|--------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | V |
| Maximum RMS voltage | V_{RMS} | 14 | 21 | 28 | 35 | 42 | 56 | 63 | 70 | V |
| Maximum DC blocking voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | 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 150 | | | | | | | | $^{\circ}\text{C}$ |

Note: Suffix "A" with type designated SMA package

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

| Parameter | Condition | Symbol | SS22 | SS23 | SS24 | SS25 | SS26 | SS28 | SS29 | SS210 | Unit |
|--|---------------------------|--------|------|------|------|------|------|------|------|-------|------|
| Maximum instantaneous forward voltage | $I_F=1\text{A}$ | V_F | 0.55 | | | 0.75 | | 0.85 | | | V |
| Maximum DC reverse current at blocking voltage | $T_C=25^{\circ}\text{C}$ | I_R | 0.5 | | | | | | | | mA |
| | $T_C=125^{\circ}\text{C}$ | | 10 | | | | | | | | |

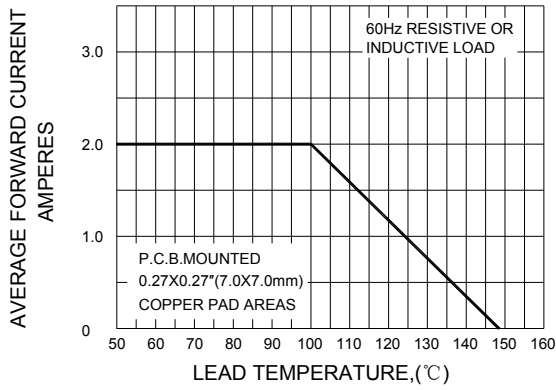
Thermal Characteristic ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

| Parameter | Symbol | SMA | Unit |
|----------------------------|-----------------------|-----|-----------------------------|
| Typical Thermal resistance | $R_{\theta JA}^{(1)}$ | 88 | $^{\circ}\text{C}/\text{W}$ |

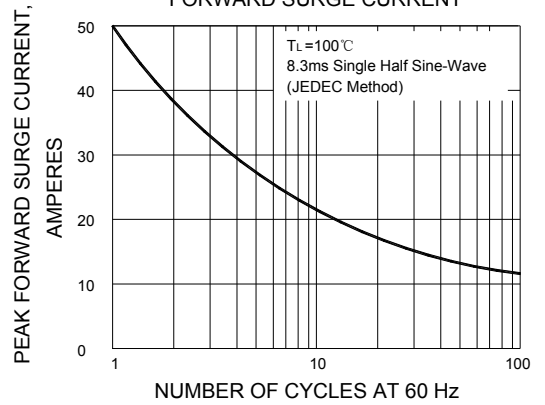
1. P.C.C. Mounted with 0.2"× 0.2"(5.0×5.0mm) copper pads

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

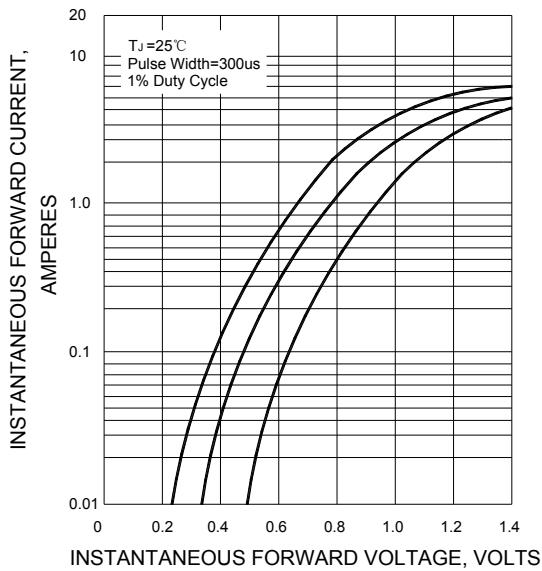
F1G.1-FORWARD CURRENT DERATING CURVE



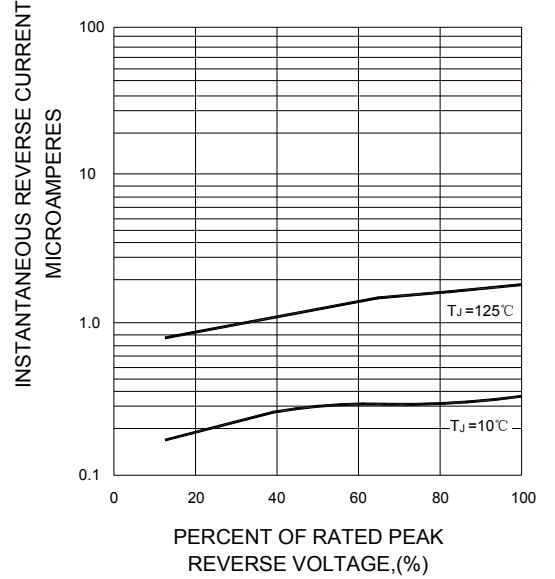
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



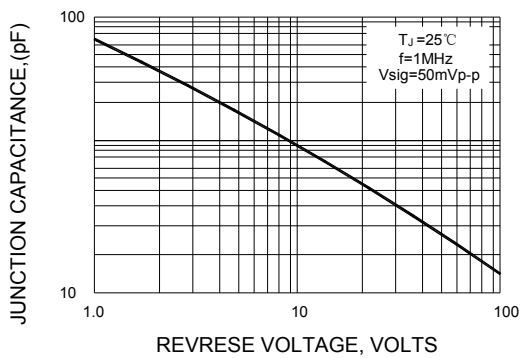
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



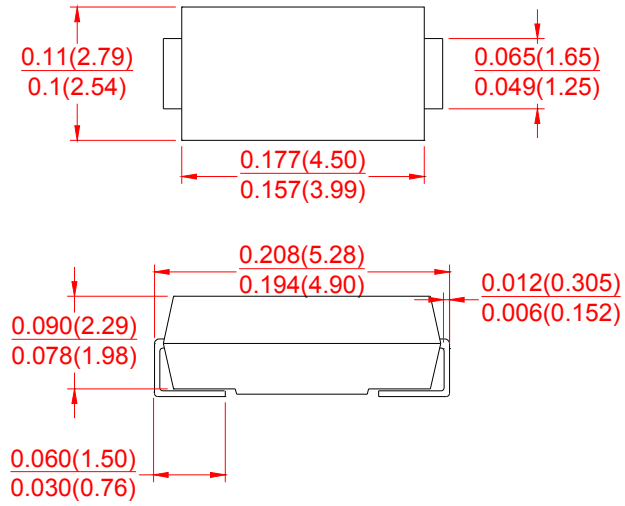
F1G.5-TYPICAL JUNCTION CAPACITANCE



SS22 thru SS210

Package Outline Dimensions in inches and millimeters

SMA(DO-214AC)



SS22 thru SS210

The SINO-IC logo is a registered trademark of ShangHai Sino-IC Microelectronics Co., Ltd.

© 2005 SINO-IC – Printed in China – All rights reserved.

SHANGHAI SINO-IC MICROELECTRONICS CO., LTD

Add: Building 3, Room 3401-03, No.200 Zhangheng Road, ZhangJiang Hi-Tech Park, Pudong,
Shanghai 201203, China

Phone: +86-21-33932402 33932403 33932405 33933508 33933608

Fax: +86-21-33932401

Email: webmaster@sino-ic.net

Website: <http://www.sino-ic.net>