



RoHS
COMPLIANCE

HALOGEN
FREE



Features

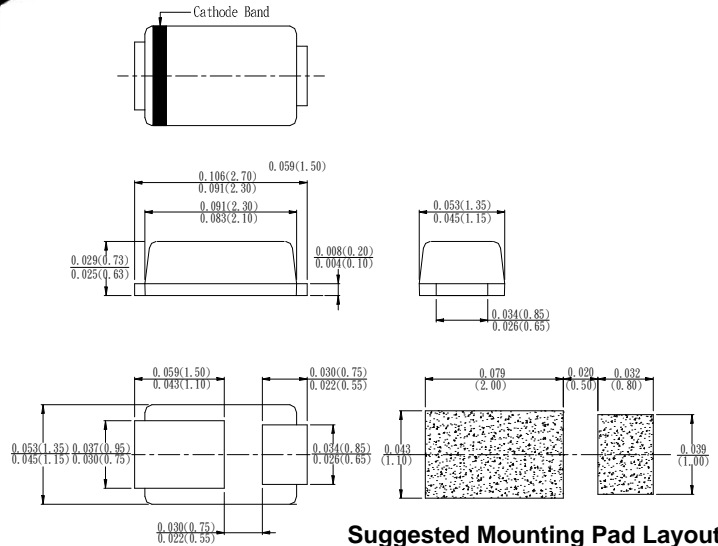
- ✧ Very low profile - typical height of 0.68mm
- ✧ Ideal for automated placement
- ✧ Low forward voltage drop. Low power loss.
- ✧ High efficiency
- ✧ Meet MSL level 1, per J-STD-020D, lead free maximum peak of 260 °C
- ✧ Solder dip 265 °C max. 10 s, per JESD 22-A111
- ✧ Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC
- ✧ Halogen-free according to IEC 61249-2-21 definition

Typical Application

- ✧ For use in low voltage high frequency inverter, freewheeling, DC to DC converter, and polarity protection applications.

Mechanical Data

- ✧ Case: Micro SMA
- ✧ Molding Compound meet UL 94V-0 flammability rating.
- ✧ Terminals: Matte tin plated leads, solderable per J-STD-002B, and JESD22-B102D.
- ✧ Polarity: Indicated by Cathode Band
- ✧ Packaging: 8 mm tape per EIA Std RS-481
- ✧ Weight: 0.006 gram



Dimensions in inches and (millimeters)

Marking Diagram



X = Device Marking Code
Y = Year
M = Month

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| | | | | | | |
|---|--|-----------------|-------|-------|------|----------------|
| Parameter | Symbol | SS13M | SS14M | SS16M | | Unit |
| Device Marking Code | | A | B | C | | |
| Maximum Repetitive Peak Reverse Voltage | V _{RRM} | 30 | 40 | 60 | | V |
| Maximum Average Forward Rectified Current (Fig.1) | I _(AV) | 1 | | | | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load | I _{FSM} | 25 | | | | A |
| Maximum Instantaneous Forward Voltage @ 0.5A / T _a =25℃ @ 0.5A / T _a =125℃ @ 1.0A / T _a =25℃ @ 1.0A / T _a =125℃ | V _F | TYP. | MAX. | TYP. | MAX. | V |
| | | 0.45 | - | 0.51 | - | |
| | | 0.35 | - | 0.46 | - | |
| | | 0.52 | 0.55 | 0.64 | 0.68 | |
| | | 0.46 | 0.50 | 0.57 | 0.60 | |
| Maximum Reverse Current @ Rated VR T _a =25 ℃ T _a =125 ℃ T _a =150 ℃ | I _R | TYP. | MAX. | TYP. | MAX. | uA mA mA |
| | | 1 | 50 | 2 | 50 | |
| | | 2 | 10 | 2 | 10 | |
| | | 6 | - | 7 | - | |
| Typical Junction Capacitance (Note 1) | C _j | 50 | | 40 | | pF |
| Typical Thermal Resistance (Note 2) | R _{θJA} R _{θJL} R _{θJC} | 125 30 40 | | | | ℃/W |
| Operating Temperature Range | T _J | -55 to + 150 | | | | ℃ |
| Storage Temperature Range | T _{STG} | -55 to + 150 | | | | ℃ |

Note1: Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

Note2: Mount on Cu-Pad Size 6mm × 6mm x 1.6mm on P.C.B.

RATINGS AND CHARACTERISTIC CURVES (SS13M/SS14M/SS16M)

Fig.1 Maximum Forward Current Derating Curve

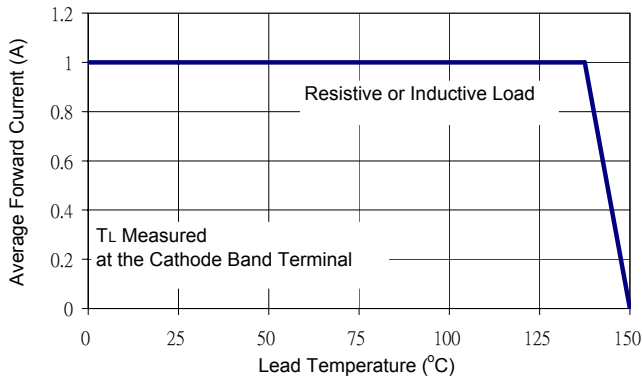


Fig. 2 Maximum Forward Surge Current

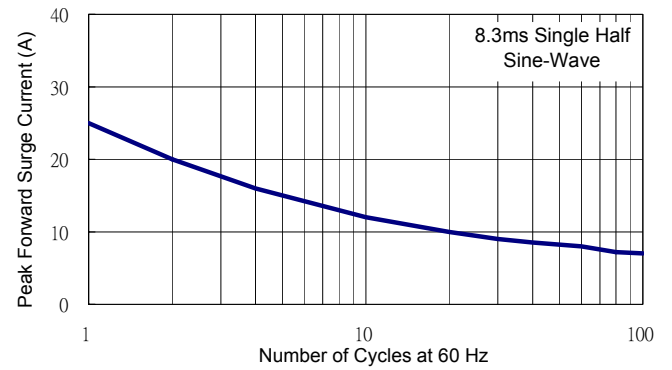


Fig. 3 Typical Forward Characteristics - SS13M/14M

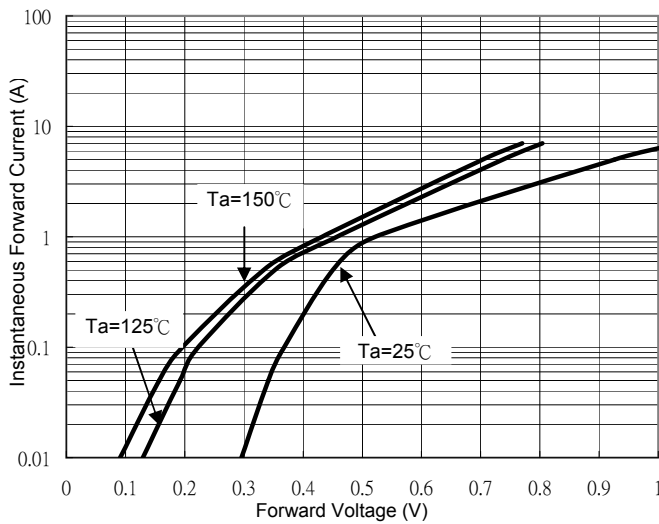


Fig. 4 Typical Forward Characteristics - SS16M

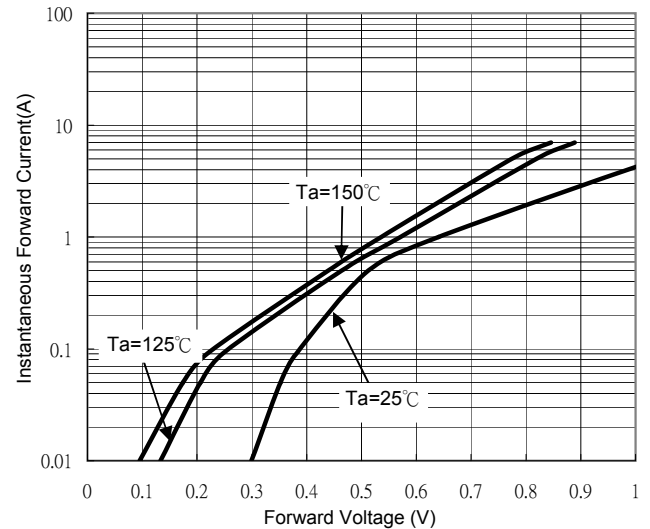


Fig. 5 Typical Reverse Characteristics - SS13M/14M

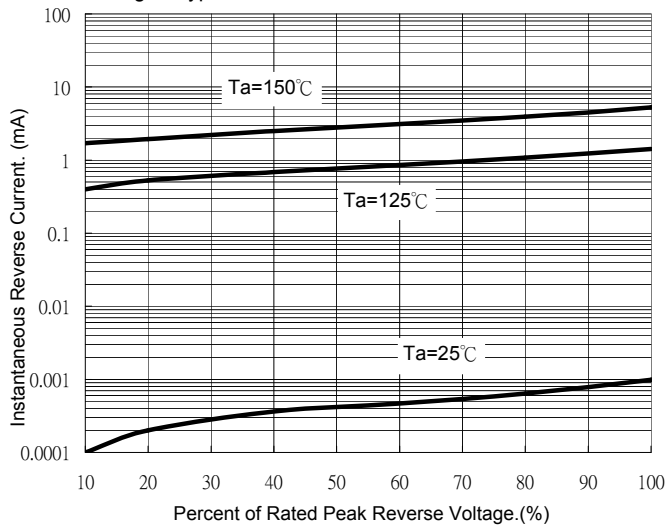
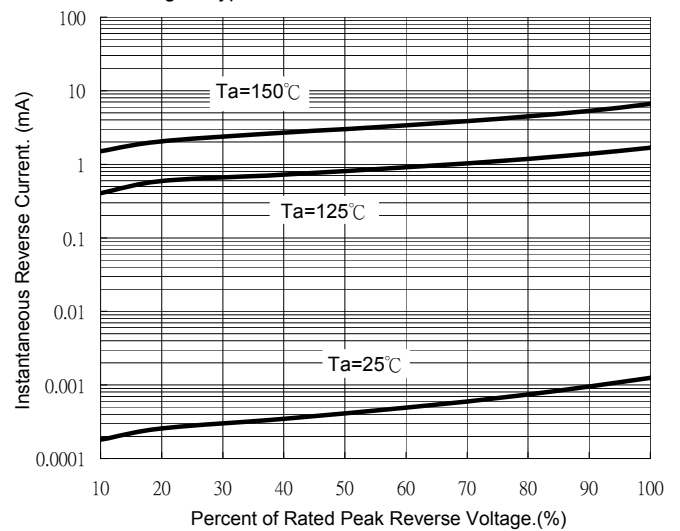


Fig. 6 Typical Reverse Characteristics - SS16M



RATINGS AND CHARACTERISTIC CURVES (SS13M/SS14M/SS16M)

Fig. 7 Typical Junction Capacitance

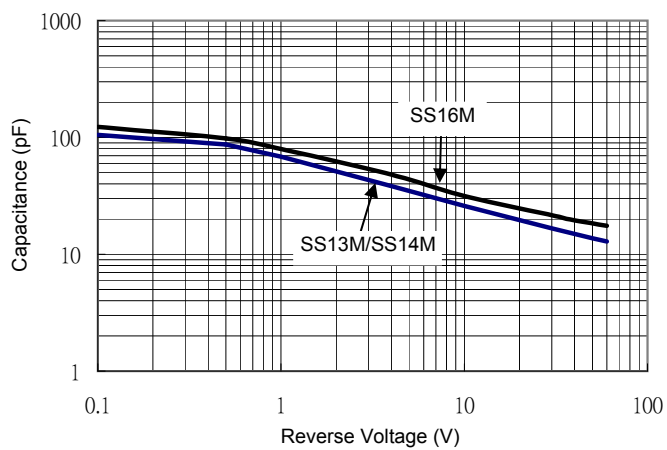


Fig. 8 Typical Transient Thermal Impedance

