

Surface Mount Schottky Barrier Rectifier
Reverse Voltage - 45 to 100V
Forward Current - 10.0A

FEATURES

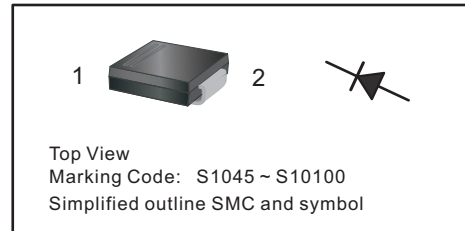
- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case: SMC
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.22g / 0.0077oz

PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1 | Cathode |
| 2 | Anode |



Absolute Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

| Parameter | Symbols | SS1045C | SS1060C | SS10100C | Units |
|---|-----------------|------------|---------|----------|---------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 45 | 60 | 100 | V |
| Maximum RMS voltage | V_{RMS} | 32 | 42 | 70 | V |
| Maximum DC Blocking Voltage | V_{DC} | 45 | 60 | 100 | V |
| Maximum Average Forward Rectified Current | $I_{F(AV)}$ | 10.0 | | | A |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 200 | | | A |
| Max Instantaneous Forward Voltage @10.0 A | V_F | 0.55 | 0.75 | 0.90 | V |
| Maximum DC Reverse Current $T_j = 25^{\circ}C$ at Rated DC Reverse Voltage $T_j = 100^{\circ}C$ | I_R | 0.5 50 | | | mA |
| Typical Thermal Resistance | $R_{\theta JA}$ | 20 | | | $^{\circ}C/W$ |
| Operating Junction Temperature Range | T_j | -55 ~ +150 | | | $^{\circ}C$ |
| Storage Temperature Range | T_{stg} | -55 ~ +150 | | | $^{\circ}C$ |

(1) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Fig.1 Forward Current Derating Curve

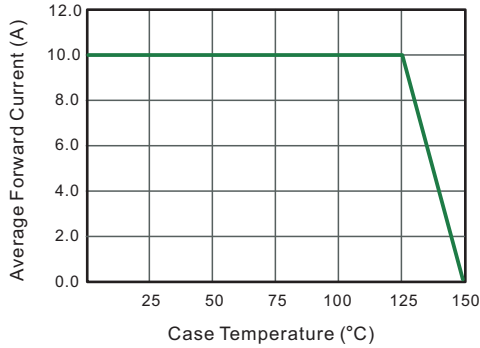


Fig.2 Typical Reverse Characteristics

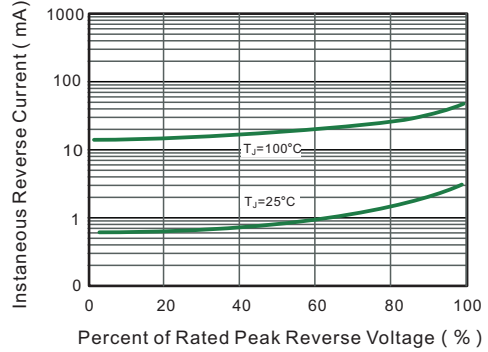


Fig.3 Typical Forward Characteristic

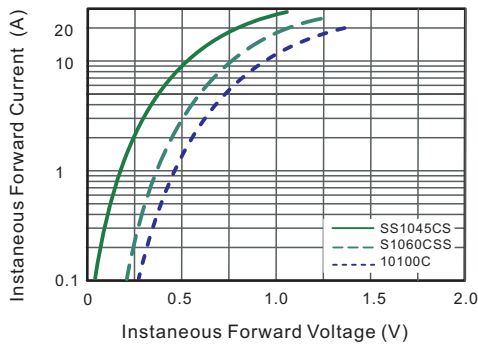


Fig.4- Typical Transient Thermal Impedance

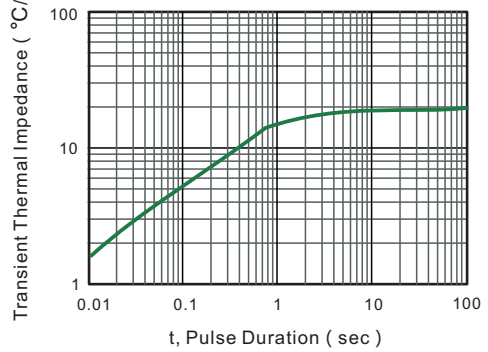
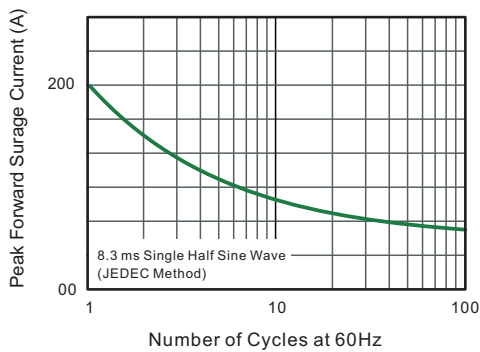


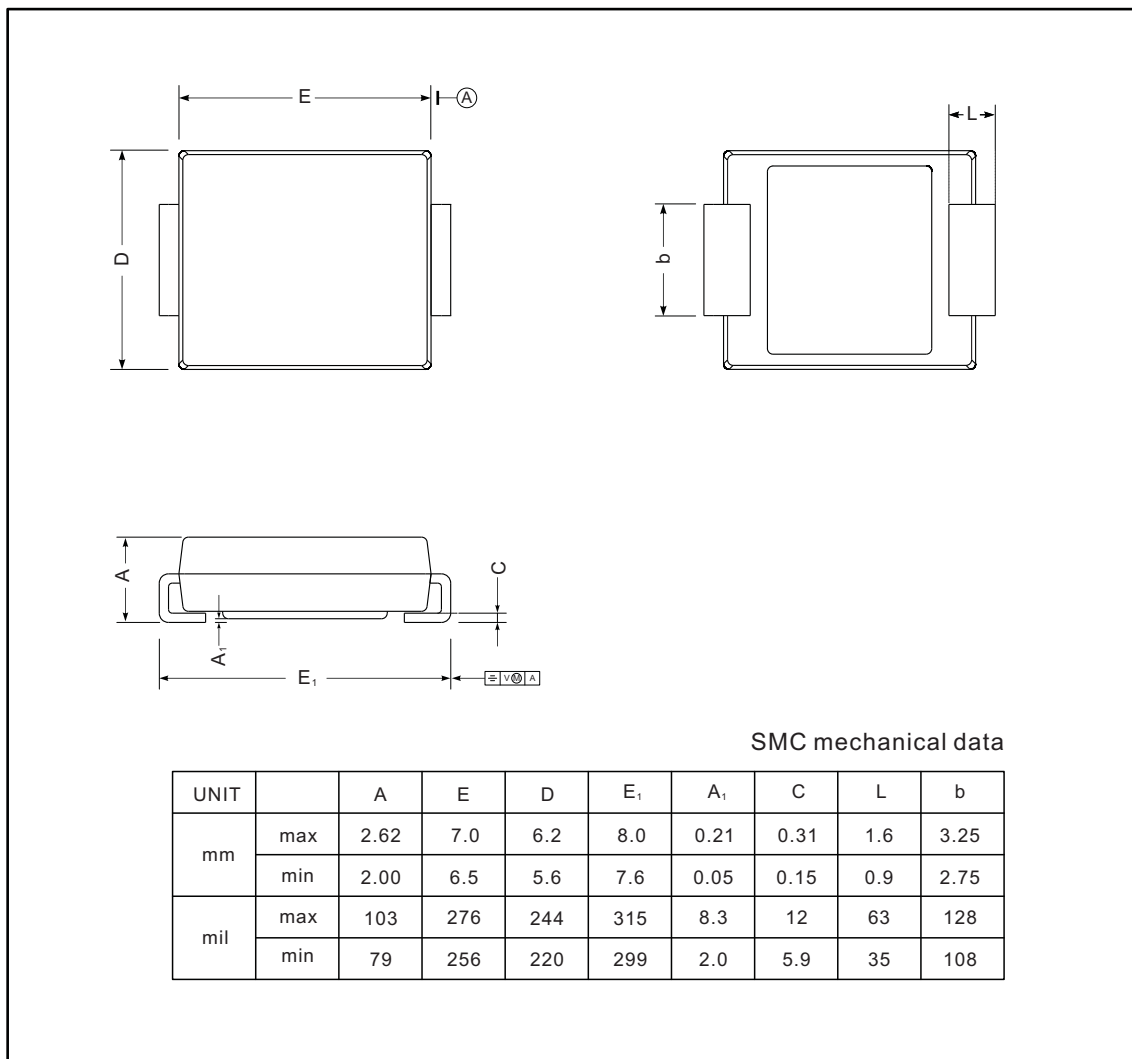
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



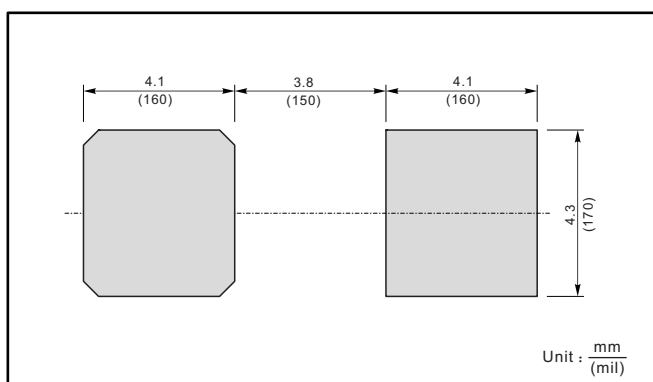
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMC



The recommended mounting pad size



Marking

| Type number | Marking code |
|-------------|--------------|
| SS1045C | S1045 |
| SS1060C | S1060 |
| SS10100C | S10100 |