



Surface Mount Schottky Barrier Rectifier
Reverse Voltage - 60 V
Forward Current - 5.0A

Features

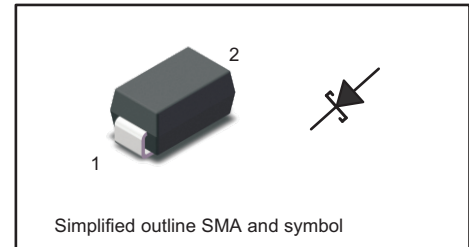
- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case: SMA
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.055g / 0.002oz

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 | SS56L | Units |
|--|---|-----------------|------------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 60 | V |
| Maximum RMS voltage | V_{RMS} | 42 | V |
| Maximum DC Blocking Voltage | V_{DC} | 60 | V |
| Maximum Average Forward Rectified Current @ Fig.1 | $I_{F(AV)}$ | 5.0 | A |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 110 | A |
| Peak Forward Surge Current, 1.0ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 220 | A |
| I^2t Rating for fusing ($3ms \leq t \leq 8.3ms$) | I^2t | 50.2 | A ² S |
| Max Instantaneous Forward Voltage at 5 A | V_F | 0.55 | V |
| Maximum DC Reverse Current $T_a = 25^\circ C$ at Rated DC Reverse Voltage $T_a = 100^\circ C$ | I_R | 0.2 10 | mA |
| Typical Junction Capacitance ⁽¹⁾ | C_j | 260 | pF |
| Typical Thermal Resistance ⁽²⁾ | $R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$ | 100 20 25 | °C/W |
| Operating Junction Temperature Range | T_j | -55 ~ +125 | °C |
| Storage Temperature Range | T_{stg} | -55 ~ +150 | °C |

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) P.C.B. mounted with 0.2" X 0.2" (5 X 5 mm) copper pad areas.



Fig.1 Forward Current Derating Curve

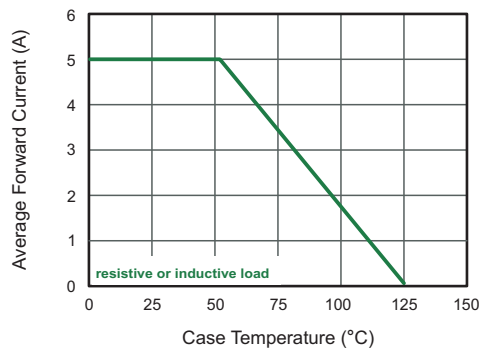


Fig.2 Typical Reverse Characteristics

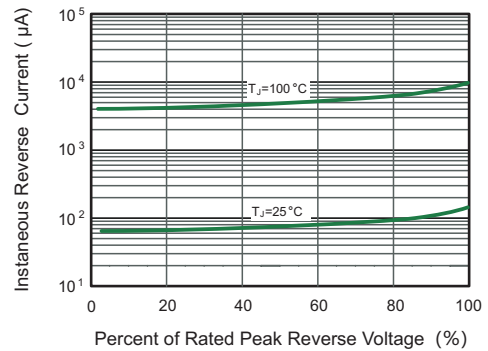


Fig.3 Typical Forward Characteristic

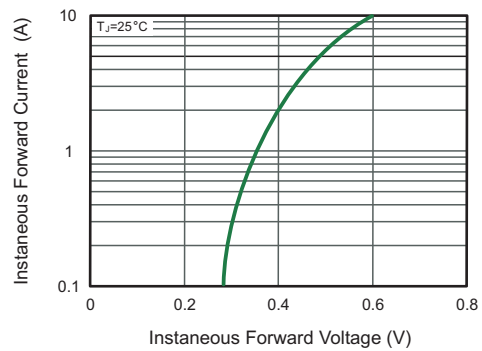


Fig.4 Typical Junction Capacitance

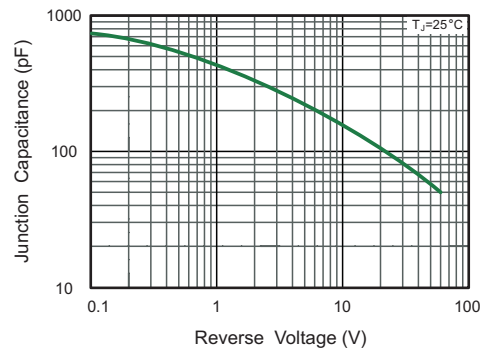
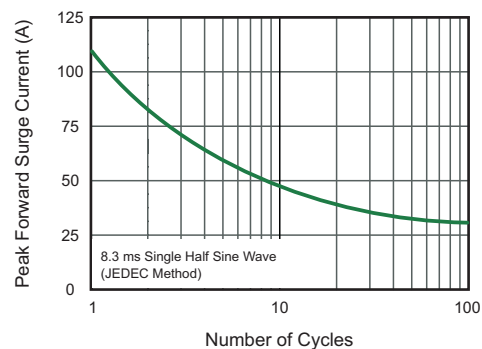


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

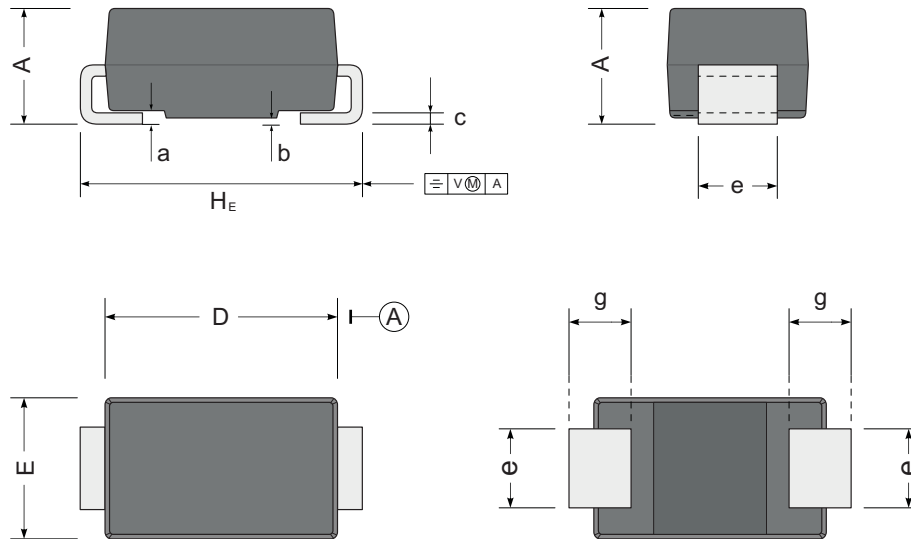




PACKAGE OUTLINE

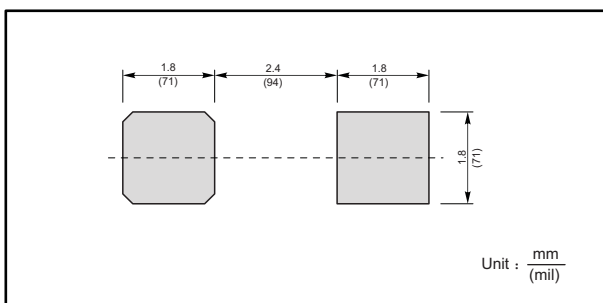
Plastic surface mounted package; 2 leads

SMA



| UNIT | | A | D | E | H _E | c | e | g | b | a |
|------|-----|-----|-----|-----|----------------|------|-----|-----|------|-----|
| mm | max | 2.2 | 4.5 | 2.7 | 5.2 | 0.31 | 1.6 | 1.5 | 0.2 | 0.3 |
| | min | 1.9 | 4.0 | 2.3 | 4.7 | 0.15 | 1.3 | 0.9 | 0.05 | |
| mil | max | 87 | 181 | 106 | 205 | 12 | 63 | 59 | 7.9 | 12 |
| | min | 75 | 157 | 91 | 185 | 6 | 51 | 35 | 2 | |

The recommended mounting pad size



Marking

| Type number | Marking code |
|-------------|--------------|
| SS56L | S56L |



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