

Schottky Barrier Rectifiers

SS10100C

Features

- Metal silicon junction, majority carrier conduction
- High surge capability
- High temperature soldering guaranteed:
260°C/10 seconds
- High current capability, low forward voltage drop
- Guarding for over voltage protection
- RoHS Compliant



Mechanical Data

- Case: SMC molded plastic
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Color band denotes cathode end

Maximum Ratings (@T_A = 25°C unless otherwise specified)

| Characteristic | Symbol | SS10100C | Units |
|--|--------------------|----------|-------|
| Peak repetitive reverse voltage | V _{RRM} | 100 | V |
| RMS reverse voltage | V _{RMS} | 70 | V |
| DC blocking voltage | V _{DC} | 100 | V |
| Maximum average forward output current | I _{F(AV)} | 10 | A |
| Peak forward surge current, 8.3ms single half-sine-wave | I _{FSM} | 250 | A |

Thermal Characteristics

| Parameter | Symbol | SS10100C | Units |
|--|------------------|-----------------|-------|
| Typical thermal resistance (Note 1) | R _{θJA} | 56 | °C/W |
| | R _{θJC} | 23 | |
| | R _{θJL} | 14 | |
| Operating junction temperature range | T _J | - 55 ---- + 150 | °C |
| Storage temperature range | T _{STG} | - 55 ---- + 150 | °C |

Note:

1. Device mounted on PCB with 10 mm x 20 mm x 0.1mm copper pad areas

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

| Parameter | Symbol | Test conditions | | Typ. | Max. | Units |
|---|--------|------------------|---------------------------|------|------|---------------|
| Maximum instantaneous forward voltage(Note 1) | V_F | $I_F=10\text{A}$ | @ $T_A=25^\circ\text{C}$ | -- | 0.85 | V |
| Maximum Reverse current (Note 2) | I_R | Rated V_R , | @ $T_J=25^\circ\text{C}$ | -- | 250 | μA |
| | | | @ $T_J=100^\circ\text{C}$ | -- | 10 | m A |

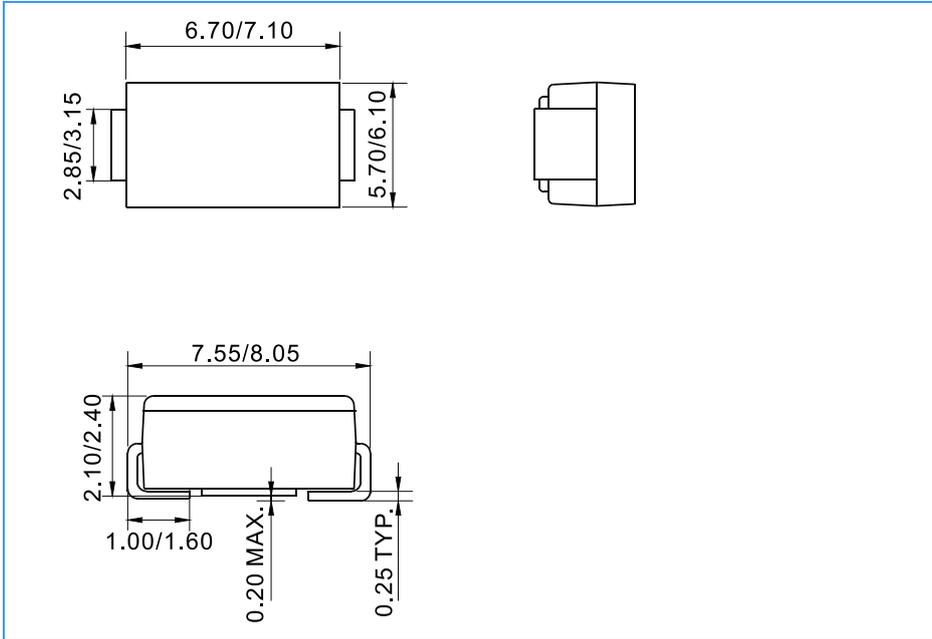
Note:

- 1.Pulse test: 300us pulse width, 1 % duty cycle
- 2.Pulse test: Pulse width 40ms

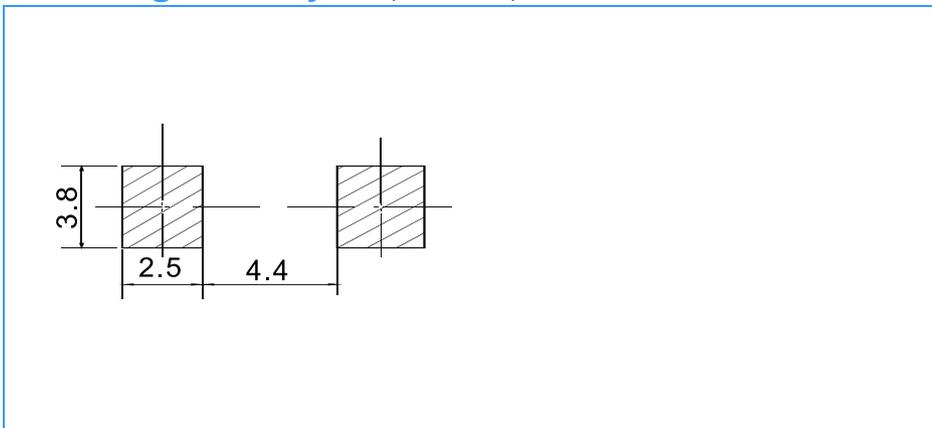
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Package Outline Dimensions(unit:mm)



Mounting Pad Layout(unit:mm)



Ordering Information

| Part No. | Marking | Package | Shipping |
|----------|----------|---------|------------------|
| SS10100C | SS10100C | SMC | 3000 / Tape&Reel |