

Schottky Barrier Rectifiers

MBRX250H-MBRX260H

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: SOD-123FL 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 | MBRX250H | MBRX260H | Units |
|--|--------------------|----------|----------|-------|
| Peak repetitive reverse voltage | V _{RRM} | 50 | 60 | V |
| RMS reverse voltage | V _{RMS} | 35 | 42 | V |
| DC blocking voltage | V _{DC} | 50 | 60 | V |
| Maximum average forward output current | I _{F(AV)} | 2.0 | | A |
| Peak forward surge current, 8.3ms single half-sine-wave | I _{FSM} | 50 | | A |

Thermal Characteristics

| Parameter | Symbol | MBRX250H | MBRX260H | Units |
|--|------------------|-----------------|----------|-------|
| Typical thermal resistance (Note 1) | R _{θJA} | 85 | | °C/W |
| | R _{θJC} | 23 | | |
| | R _{θJL} | 15 | | |
| 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°C unless otherwise specified)

| Parameter | Symbol | Test conditions | | Typ. | Max. | Units |
|---|----------------|------------------------|------------------------|------|------|-------|
| Maximum instantaneous forward voltage(Note 1) | V _F | I _F =2.0A | @T _A =25°C | -- | 0.75 | V |
| Maximum Reverse current (Note 2) | I _R | Rated V _R , | @T _J =25°C | -- | 250 | μ A |
| | | | @T _J =100°C | -- | 15 | m A |

Note:

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

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

Fig.1-Forward Current Derating Curve

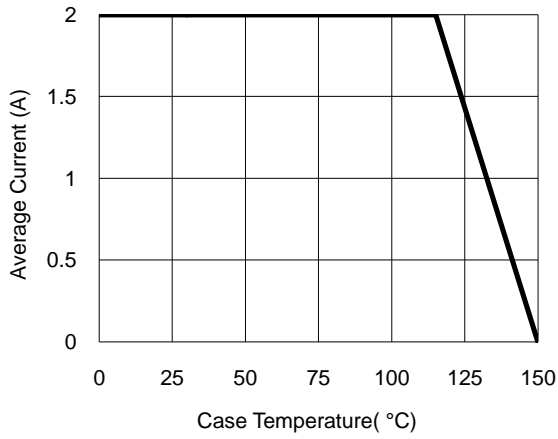


Fig.2- Surge Current Derating Curve

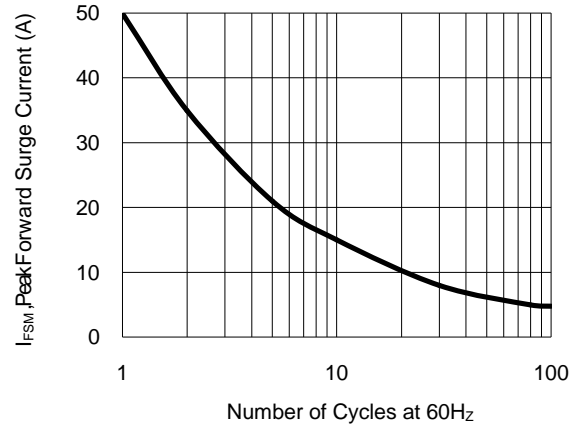


Fig.3- Typical Forward Voltage Characteristic

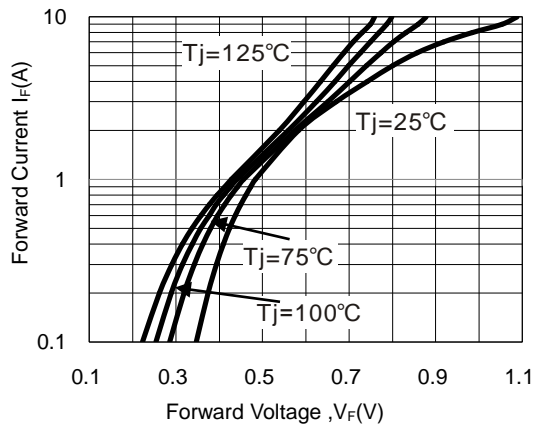
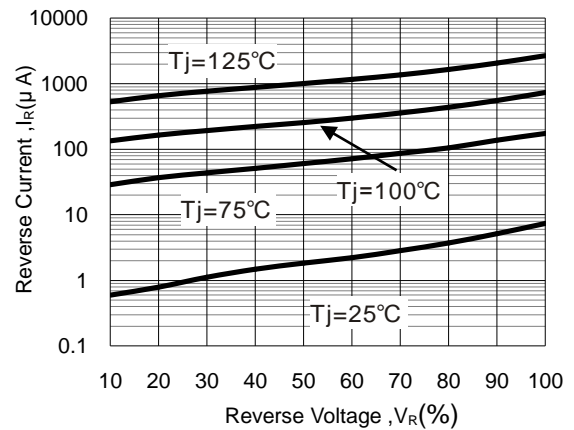


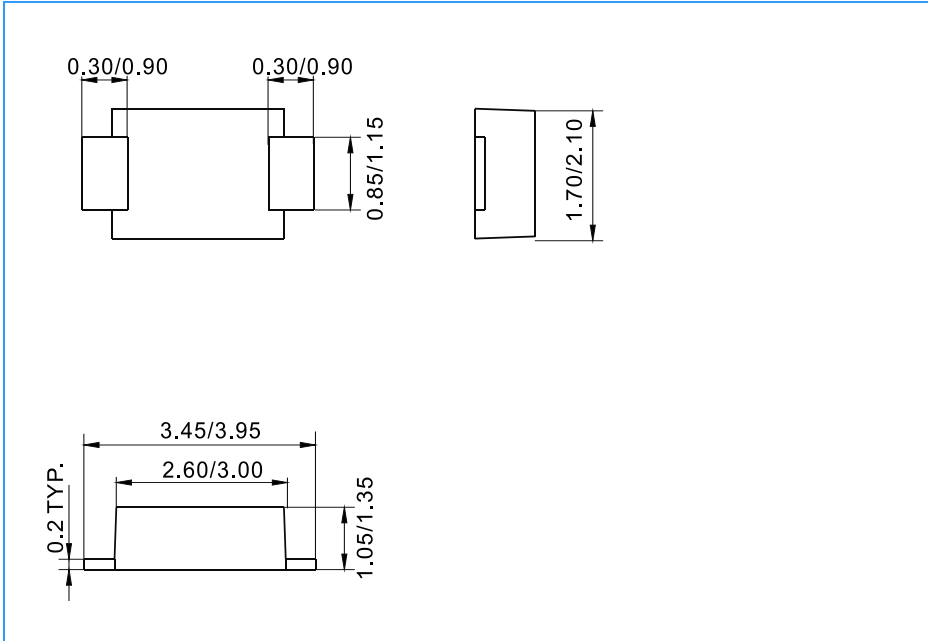
Fig.4- Typical Reverse Characteristic



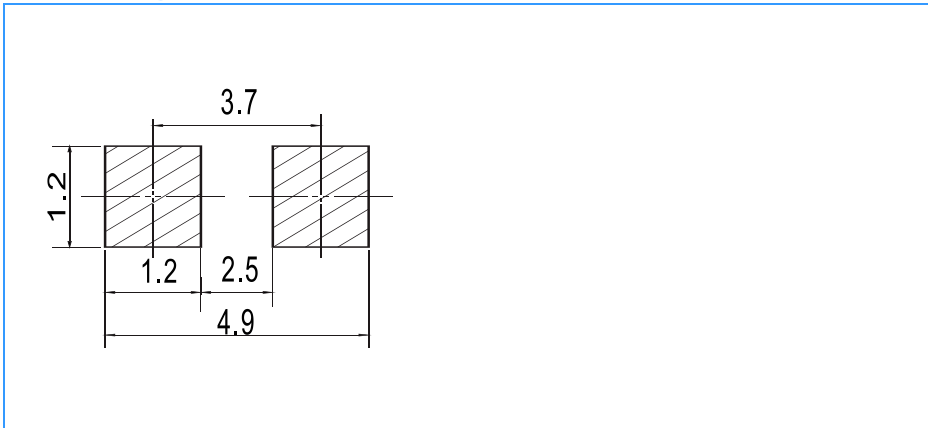
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Package Outline Dimensions(unit:mm)



Mounting Pad Layout(unit:mm)



Ordering Information

| Part No. | Marking | Package | Shipping |
|----------|---------|-----------|-----------------|
| MBRX250H | H25 | SOD-123FL | 10000/Tape&Reel |
| MBRX260H | H26 | SOD-123FL | 10000/Tape&Reel |