

5A SURFACE MOUNT SCHOTTKY BRIDGE RECTIFIER

Reverse Voltage - 60 V

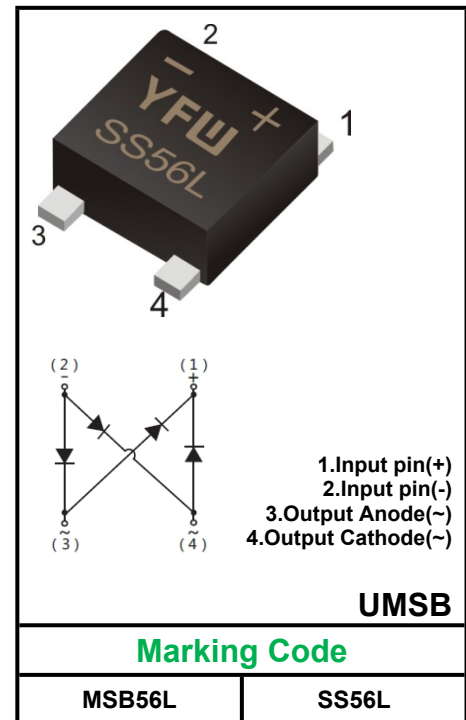
Forward Current – 5A

FEATURES

- ♦High current capability
- ♦Low forward voltage drop
- ♦Designed for Surface Mount Application
- ♦Low power loss, high efficiency
- ♦Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ♦Case: UMSB
- ♦Terminals: Solderable per MIL-STD-750, Method 2026
- ♦Approx. Weight: 233.7mg / 0.00824oz



Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

| Parameter | Symbols | MSB56L | 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 |
| Average Rectified Output Current | I_o | 5.0 | A |
| Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load(JEDEC method) | I_{FSM} | 80 | A |
| Forward Voltage per element @ $I_F=3A$ @ $I_F=5A$ | V_F | 0.45(TYP) 0.59 | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_A=25^{\circ}C$ | I_R | 0.3 | mA |
| Typical Junction Capacitance (Note1) | C_j | 300 | pF |
| Operating and Storage Temperature Range | T_j, T_{stg} | -55 ~ +150 | °C |

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

(2) Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81×3.81 cm) copper pad.

Fig.1 Average Rectified Output Current Derating Curve

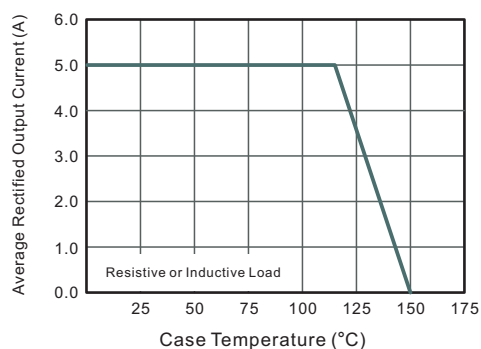


Fig.2 Typical Reverse Characteristics

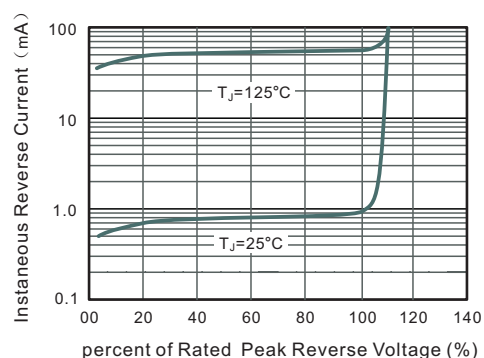


Fig.3 Typical Instantaneous Forward Characteristics

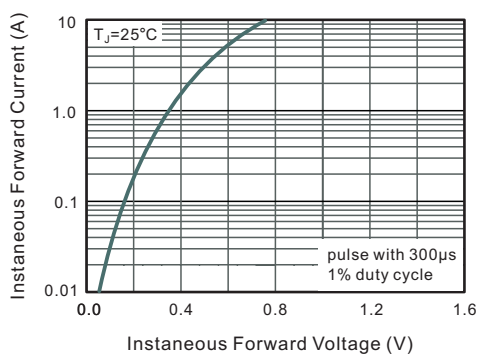


Fig.4 Typical Junction Capacitance

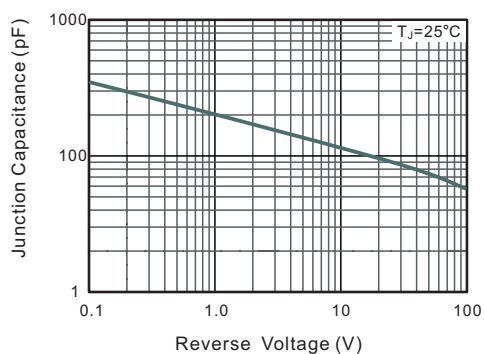
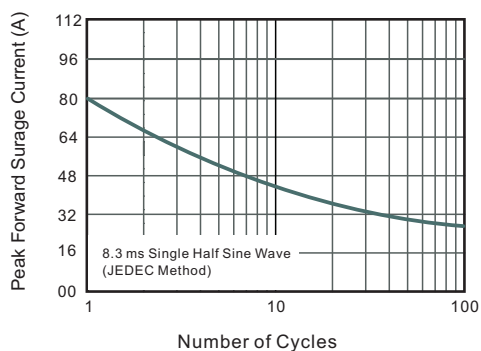
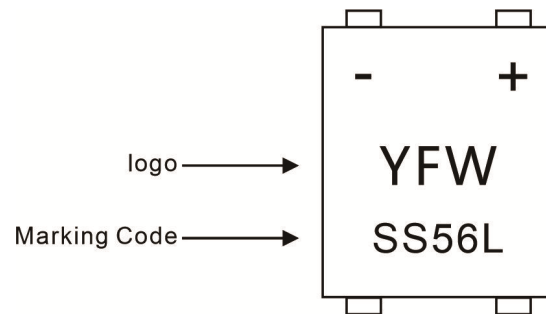


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



Marking Diagram



Ordering information

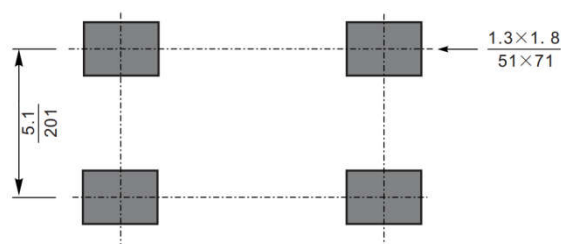
| Package | Packing Description | Packing Quantity |
|---------|---------------------|------------------------------|
| UMSB | Tape/Reel, 13" reel | 3000PCS/Reel 30000PCS/Carton |

Package Dimensions

UMSB

| Dim. | Millimeter(mm) | | (mil) | |
|----------------|----------------|------|-------|------|
| | Min. | Max. | Min. | Max. |
| A | 1.3 | 1.5 | 51 | 59 |
| C | 0.17 | 0.29 | 7 | 12 |
| D | 6.2 | 7.0 | 244 | 276 |
| E | 7.1 | 7.6 | 280 | 299 |
| E ₁ | 8.4 | 8.9 | 331 | 350 |
| L | 1.0 | 1.6 | 31.5 | 55 |
| e | 4.9 | 5.3 | 193 | 209 |
| b | 0.95 | 1.15 | 37 | 45 |
| ∠ | 10° | | | |

The recommended mounting pad size



Unit: $\frac{\text{mm}}{(\text{mil})}$

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