

**2A SURFACE MOUNT SCHOTTKY BRIDGE**

**RECTIFIER Reverse Voltage - 40 to 200 V**

**Forward Current - 2A**

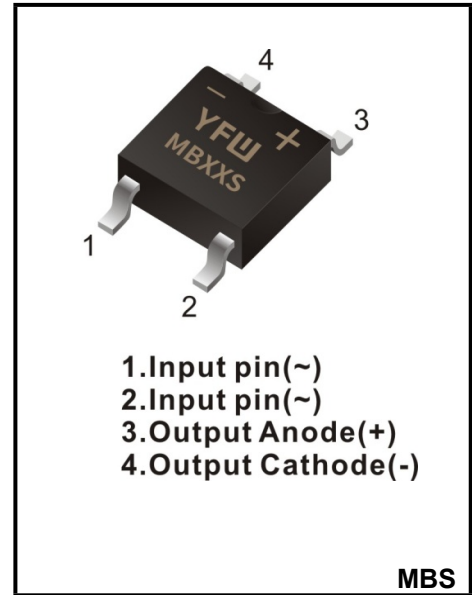
**FEATURES**

- ◆ High current capability
- ◆ Low forward voltage drop
- ◆ Low power loss, high efficiency
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives



**MECHANICAL DATA**

- ◆ Case: MBS
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 100mg / 0.0035oz



**Maximum Ratings and Electrical characteristics**

Ratings at 25 °C ambient temperature unless otherwise specified.

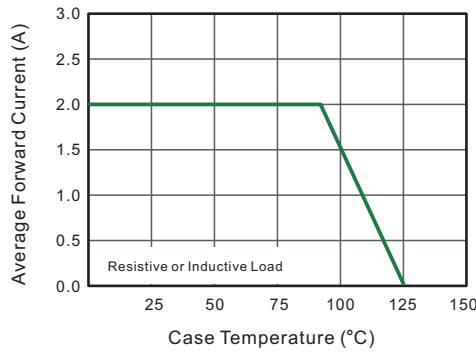
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

| Parameter   | Symbols         | MB24S      | MB26S | MB28S | MB210S | MB220S        | Units       |
|---|-----------------|------------|-------|-------|--------|---------------|-------------|
| Maximum Repetitive Peak Reverse Voltage   | $V_{RRM}$       | 40         | 60    | 80    | 100    | 200           | V           |
| Maximum RMS voltage   | $V_{RMS}$       | 28         | 42    | 56    | 70     | 140           | V           |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 40         | 60    | 80    | 100    | 200           | V           |
| Average Rectified Output Current  | $I_{F(AV)}$     | 2          |       |       |        |               | A           |
| Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load(JEDEC method)    | $I_{FSM}$       | 50         |       | 40    |        |               | A           |
| Max Instantaneous Forward Voltage at 2 A  | $V_F$           | 0.55       | 0.70  | 0.85  |        |               | V           |
| Maximum DC Reverse Current @ $T_A=25^{\circ}C$<br>at Rated DC Blocking Voltage @ $T_A=100^{\circ}C$ | $I_R$           | 0.5        |       |       | 0.3    |               | $\mu A$     |
|   |                 | 10         |       |       | 5      |               |             |
| Typical Junction Capacitance (Note1)  | $C_j$           | 220        | 80    |       |        |               | pF          |
| Typical Thermal Resistance (Note2)  | $R_{\theta JA}$ | 75         |       |       |        | $^{\circ}C/W$ |             |
| Operating and Storage Temperature Range   | $T_j$           | -55 ~ +125 |       |       |        |               | $^{\circ}C$ |
| Storage Temperature Range   | $T_{stg}$       | -55 ~ +150 |       |       |        |               | $^{\circ}C$ |

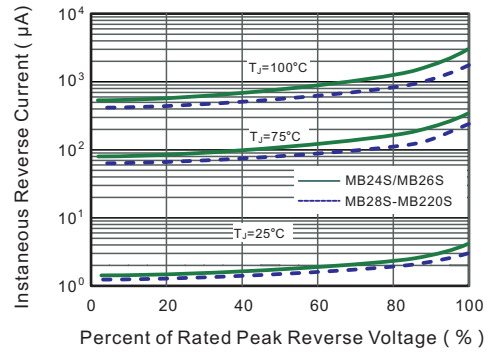
(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

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

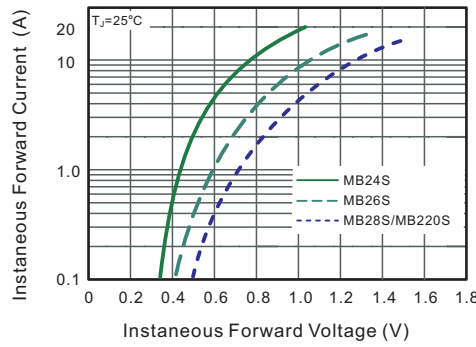
**Fig.1 Forward Current Derating Curve**



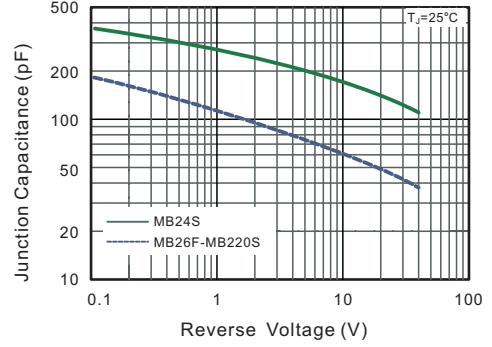
**Fig.2 Typical Reverse Characteristics**



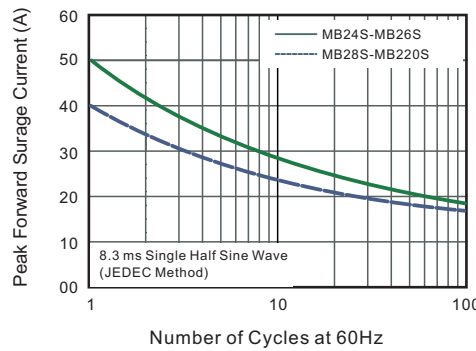
**Fig.3 Typical Forward Characteristic**



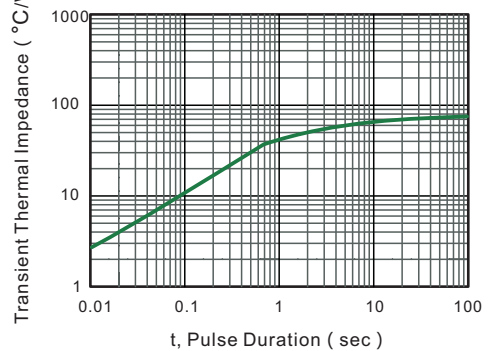
**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



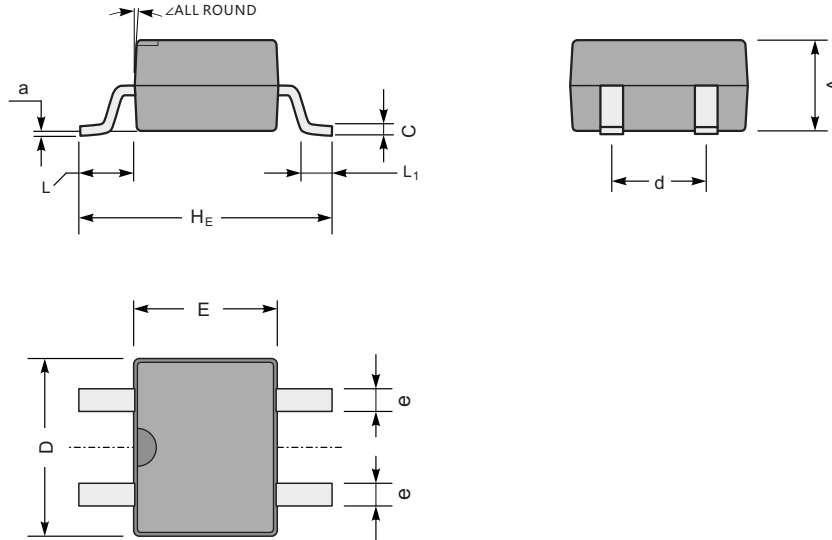
**Fig.6- Typical Transient Thermal Impedance**



**Package Outline**

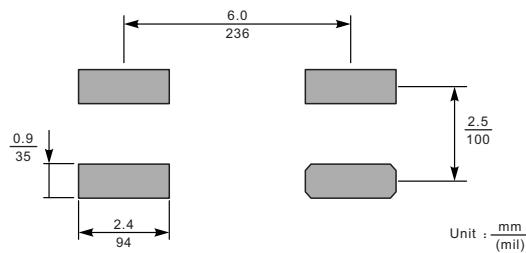
**MBS**

Plastic surface mounted package; 4 leads



| UNIT |     | A   | C    | D   | E   | HE  | d   | e   | L   | L1  | a   | ∠  |
|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|----|
| mm   | max | 2.6 | 0.22 | 5.0 | 4.1 | 7.0 | 2.7 | 0.7 | 1.7 | 1.1 | 0.2 | 7° |
|      | min | 2.2 | 0.15 | 4.5 | 3.6 | 6.4 | 2.3 | 0.5 | 1.3 | 0.5 | —   |    |
| mil  | max | 102 | 8.7  | 197 | 161 | 276 | 106 | 28  | 67  | 43  | 8   |    |
|      | min | 94  | 5.9  | 177 | 142 | 252 | 91  | 20  | 51  | 20  | —   |    |

**The recommended mounting pad size**



**Summary of Packing Options**

| Package | Packing Description | Packing Quantity | Industry Standard |
|---------|---------------------|------------------|-------------------|
| MBS     | Tape/Reel, 13" reel | 3000             | EIA-481-1         |