

**Kingtronics®****MB1S THRU MB10S****SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIERS**

REVERSE VOLTAGE: 100 to 1000 Volts    FORWARD CURRENT: 0.8 Ampere

**FEATURES**

- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing
- Molded plastic technique results in inexpensive product
- Lead tin plated copper

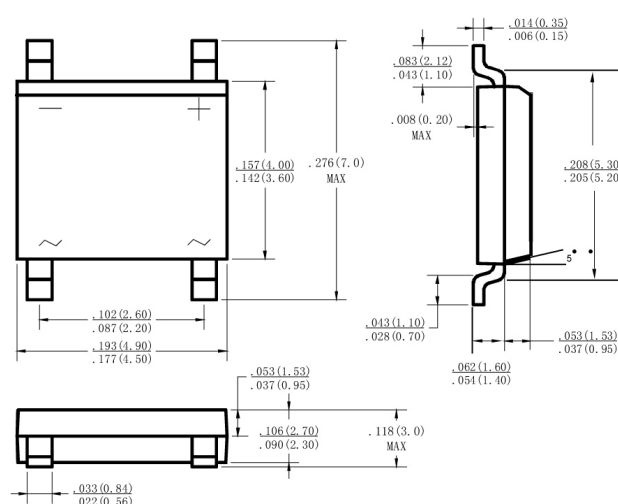
**MECHANICAL DATA**

- Polarity: Symbol molded on body
- Mounting position: Any

**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 current by 20%**

**MBS****Dimensions in inches and (millimeters)**

| CHARACTERISTICS                                                                                               | SYMBOLS         | MB1S        | MB2S | MB4S | MB6S | MB8S | MB10S | UNITS                     |
|---------------------------------------------------------------------------------------------------------------|-----------------|-------------|------|------|------|------|-------|---------------------------|
| Maximum Repetitive Peak Reverse Voltage                                                                       | $V_{RRM}$       | 100         | 200  | 400  | 600  | 800  | 1000  | V                         |
| Maximum RMS Voltage                                                                                           | $V_{RMS}$       | 70          | 140  | 280  | 420  | 560  | 700   | V                         |
| Maximum DC Blocking Voltage                                                                                   | $V_{DC}$        | 100         | 200  | 400  | 600  | 800  | 1000  | V                         |
| Maximum Average Forward Rectified Current<br>(Note 1) @ $T_A=40^\circ\text{C}$                                | $I_{(AV)}$      | 0.8         |      |      |      |      |       | A                         |
| Peak Forward Surge Current<br>8.3ms Single Half Sine-Wave<br>Super Imposed on Rated Load(JEDEC Method)        | $I_{FSM}$       | 30          |      |      |      |      |       | A                         |
| Peak Forward Voltage at 0.8A DC                                                                               | $V_F$           | 1.1         |      |      |      |      |       | V                         |
| Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$<br>at Rated DC Blocking Voltage @ $T_J=125^\circ\text{C}$ | $I_R$           | 5.0<br>500  |      |      |      |      |       | $\mu\text{A}$             |
| Typical Junction Capacitance Per Element (Note2)                                                              | $C_J$           | 15          |      |      |      |      |       | $^\circ\text{C}/\text{W}$ |
| Typical Thermal Resistance (Note3)                                                                            | $R_{\theta JL}$ | 75          |      |      |      |      |       |                           |
| Operating Temperature Range                                                                                   | $T_J$           | -55 to +150 |      |      |      |      |       | $^\circ\text{C}$          |
| Storage Temperature Range                                                                                     | $T_{STG}$       | -55 to +150 |      |      |      |      |       | $^\circ\text{C}$          |

NOTES: 1.Mounted on P.C. board.    2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.    3. Thermal resistance junction to case

**Kingtronics® International Company**Website: [www.kingtronics.com](http://www.kingtronics.com)Email: [info@kingtronics.com](mailto:info@kingtronics.com)

Tel: (852) 8106 7033

Fax: (852) 8106 7099

# Kingtronics®

# MB1S THRU MB10S

## RATING AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

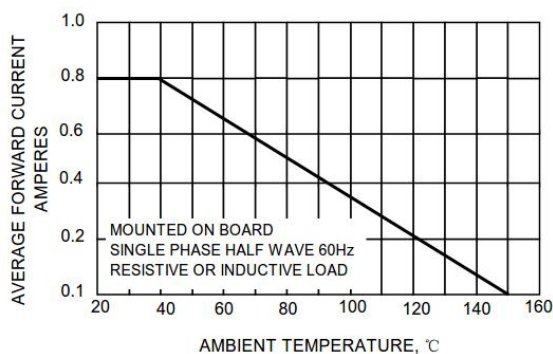


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

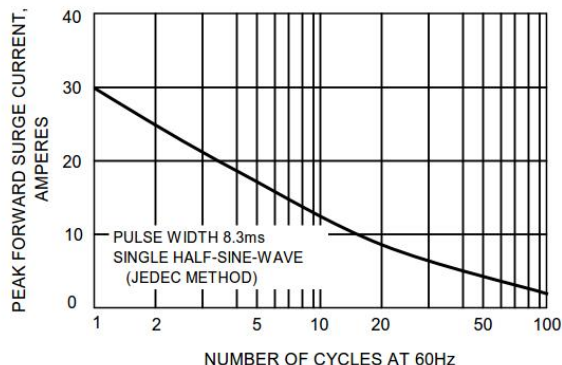


FIG.3-TYPICAL REVERSE CHARACTERISTICS

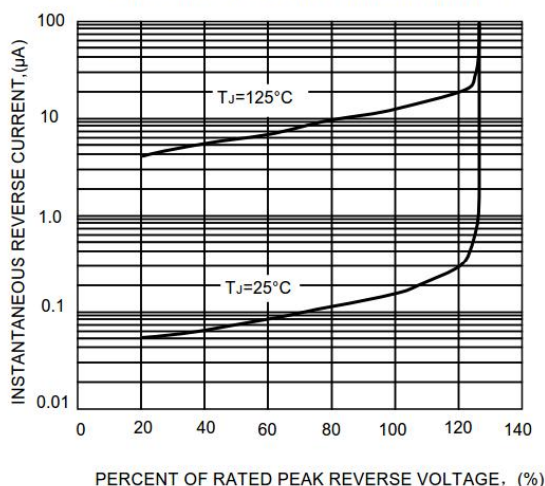


FIG.4-TYPICAL FORWARD CHARACTERISTICS

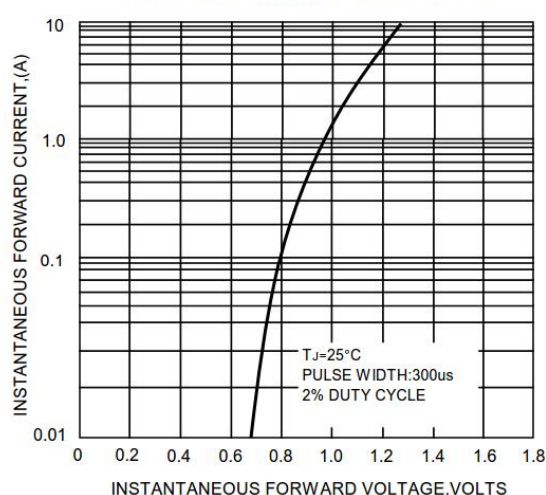
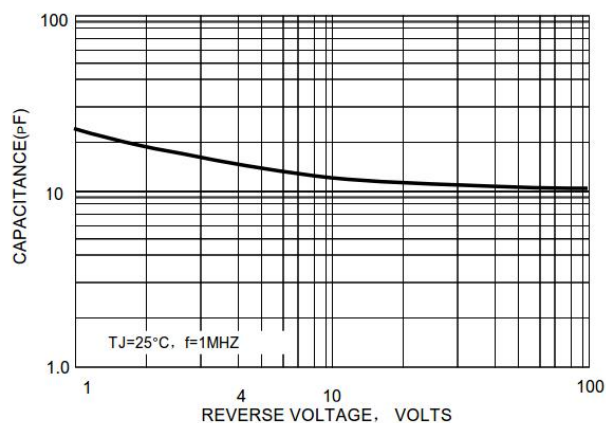


FIG.5-TYPICAL JUNCTION CAPACITANCE



**Kingtronics® International Company**