

# 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

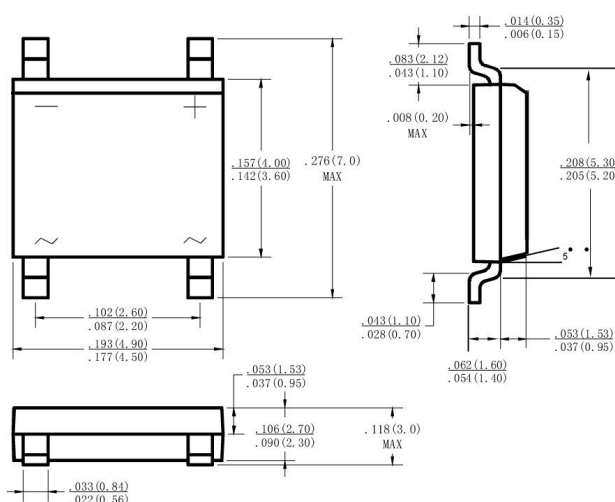
- Polarity: Symbol molded on body
- Mounting position: Any

### 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 (Note 1) @ $T_A=40^\circ\text{C}$	$I_{(AV)}$	0.8						A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave 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 @ $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_J=125^\circ\text{C}$	$I_R$	5.0 500						$\mu\text{A}$
Typical Junction Capacitance Per Element (Note2)	$C_J$	15						pF
Typical Thermal Resistance (Note3)	$R_{\theta JL}$	75						$^\circ\text{C}/\text{W}$
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

## RATING AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

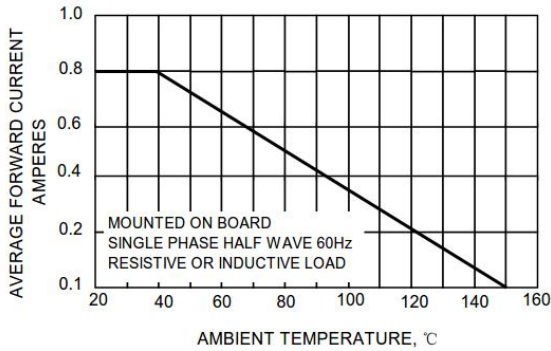


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

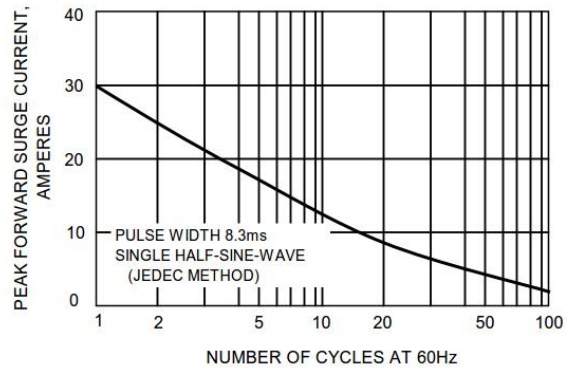


FIG.3-TYPICAL REVERSE CHARACTERISTICS

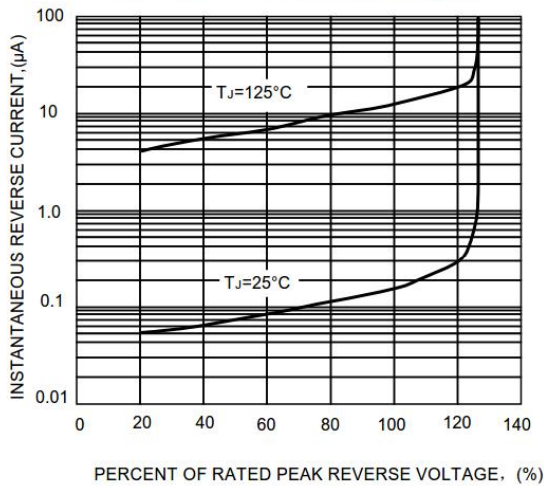


FIG.4-TYPICAL FORWARD CHARACTERISTICS

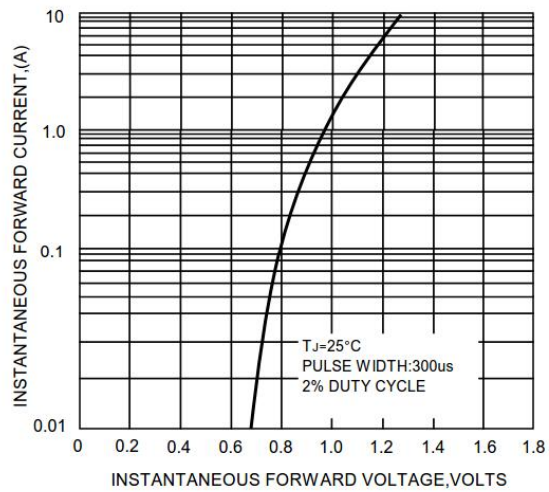


FIG.5-TYPICAL JUNCTION CAPACITANCE

