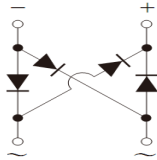


**MBS**

**Features**

- Low reverse leakage
- Glass passivated junction
- High forward surge current capability
- High efficiency operation
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0

**Mechanical Data**

- CASE: MBS Molded Plastic
- Polarity: Polarity symbol marking on body
- Mounting position: ANY
- Weight: 0.0037 ounces, 0.105 gram

**Maximum Ratings & Electrical Characteristics**

(Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.)

Parameter	SYMBOLS	MB6S	MB10S	UNITS
	MARKING	MB6S	MB10S	
Maximum repetitive peak reverse voltage	$V_{RRM}$	600	1000	V
Maximum RMS voltage	$V_{RMS}$	420	700	V
Maximum DC blocking voltage	$V_{DC}$	600	1000	V
Maximum average forward rectified current at $T_L=100\text{ C}$ On glass-epoxy P.C.B (Note 1)	$I_{(AV)}$	0.8		A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	30.0		A
Maximum instantaneous forward voltage at 1.0A	$V_F$	1.10		V
Maximum DC reverse current $T_A=25\text{ C}$ at rated DC blocking voltage $T_A=125\text{ C}$	$I_R$	10 500		$\mu\text{ A}$
Rating for fusing ( $t=8.3\text{ms}$ , $T_a=25\text{ }^\circ\text{C}$ )	$I_t^2$	3.74		$\text{A}^2\text{s}$
Typical junction capacitance (Note2)	$C_J$	18.0		pF
Typical thermal resistance	$R_{qJA}$	80.0		C/W
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150		C

**Note:** 1. Mounted on glass epoxy PC board with 1.3\*1.3mm solder pad  
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

**Summary of Packing Options**

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

## Ratings and Characteristic Curves

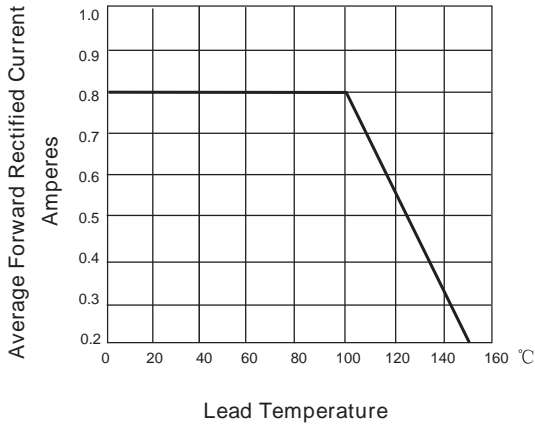


FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

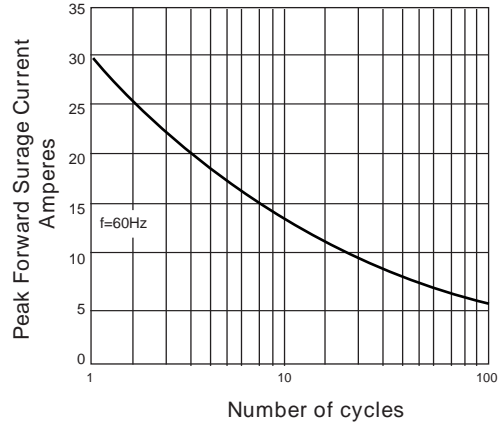


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

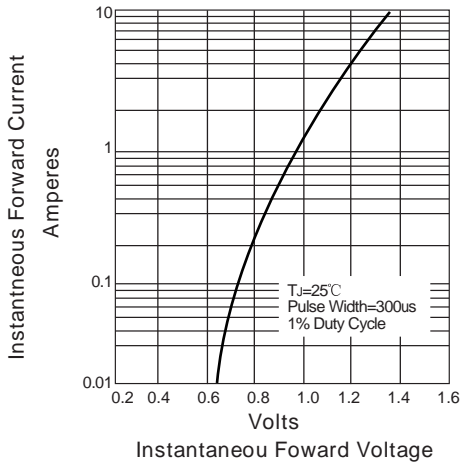


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

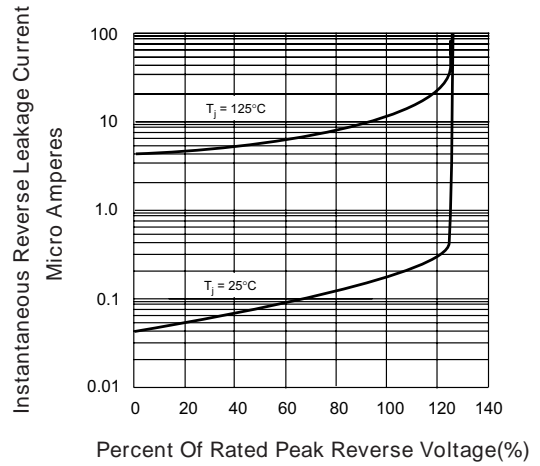
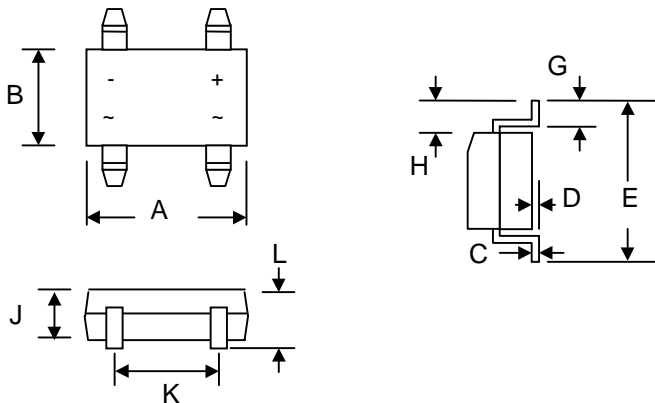


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

## Package Outline Dimensions: MBS



MB-S		
Dim	Min	Max
A	4.50	4.95
B	3.60	4.10
C	0.15	0.35
D	—	0.20
E	6.40	7.00
G	0.50	1.10
H	1.30	1.70
J	2.30	2.70
K	2.30	2.70
L	—	3.00
All Dimensions in mm		