

MBS		
Dim	Min	Max
A	4.40	4.80
B	3.40	3.80
C	2.35	2.65
D	6.50	7.00
E	0.15	0.35
F	0.90	1.50
G	0.20MAX	
H	2.50	2.80
I	0.50	0.80
K	2.30	2.70

All Dimensions in mm

## FEATURES

- Glass: passivated chip junctions
- High surge overload rating: 30A peak
- Saves space on printed circuit boards
- This series is UL recognized under Component Index, file number E239431
- Plastic material has U/L flammability classification 94V-O
- High temperature soldering guaranteed: 260°C/10 seconds at 5 lbs. (2.3kg) tension

## MECHANICAL DATA

- Case: Molded plastic body over passivated junctions
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026

## Maximum Ratings (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	MB05S	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward Output current @TA=25°C	$I_{F(AV)}$	0.5 <sup>1)</sup> 0.8 <sup>2)</sup>							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	30							A
Current squared time $t < 8.3ms$ , Ta = 25°C	$I^2t$	3.74							A <sup>2</sup> s

## Thermal Characteristics

Characteristic	Symbol	MB05S	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S	UNITS
Typical junction capacitance per leg (NOTE 3)	$C_J$	13							pF
Typical thermal resistance per leg (NOTE 1) (NOTE 2)	$R_{\theta JC}$ $R_{\theta JA}$ $R_{\theta JL}$	29 73 25							°C/W
Operating junction temperature range	$T_J$	- 55 ---- + 150							°C
Storage temperature range	$T_{STG}$	- 55 ---- + 150							°C

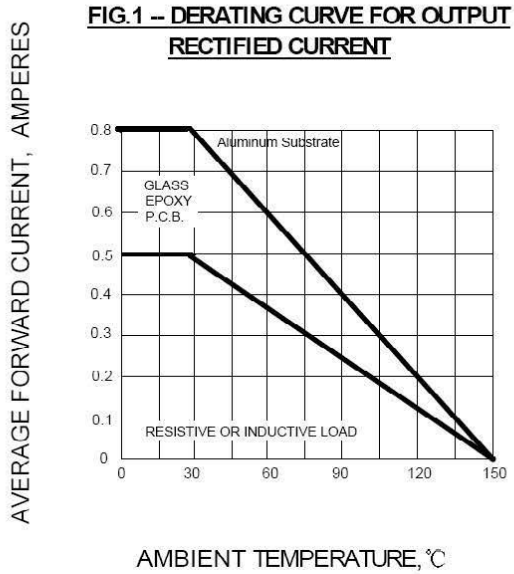
## Electrical Characteristics (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	MB05S	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S	UNITS
Maximum instantaneous forward voltage at 0.4 A	$V_F$	1.0							V
Maximum reverse current @TA=25°C at rated DC blocking voltage @TA=125°C	$I_R$	5.0 100							μA

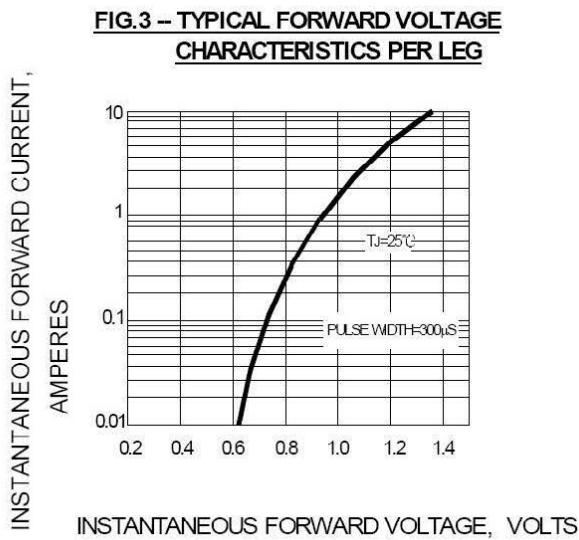
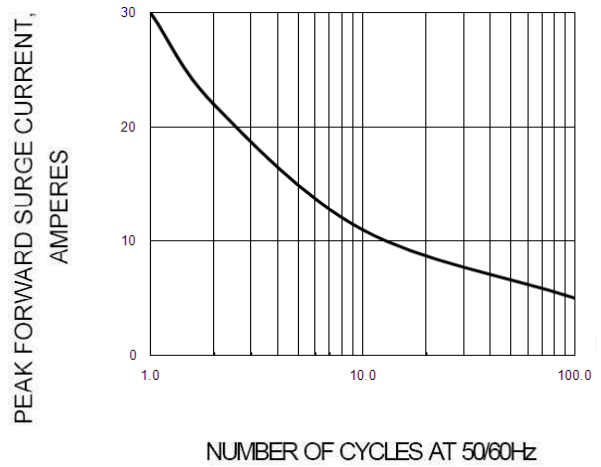
NOTES: (1) On glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.3 x 1.3mm) pads

(2) On aluminum substrate P.C.B. with an area of 0.8" x 0.8" (20 x 20mm) mounted on 0.05 x 0.05" (1.3 x 1.3mm) solder pad

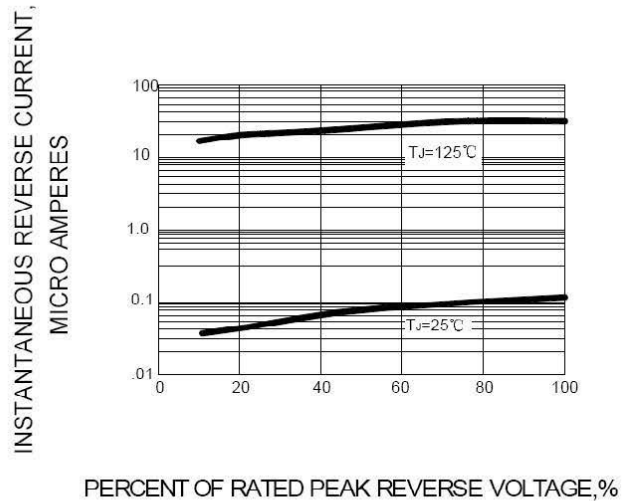
(3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts



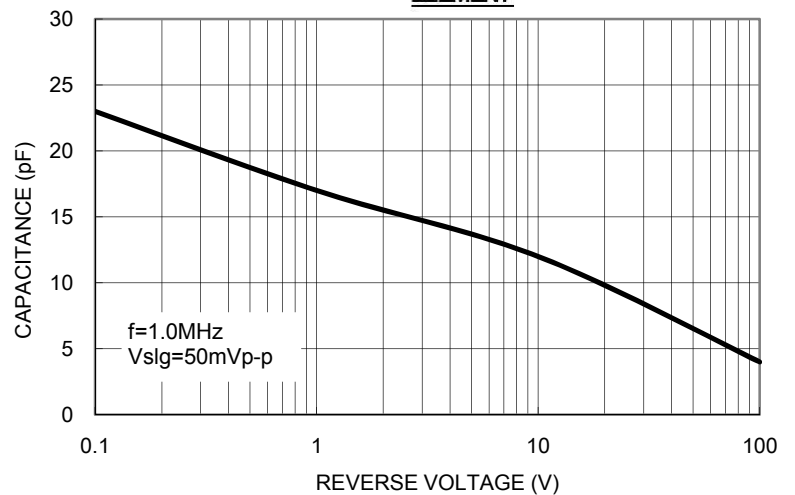
**FIG.2 -- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



**FIG.4 -- TYPICAL REVERSE CHARACTERISTIC**



**FIG.5 -- TYPICAL JUNCTION CAPACITANCE PER ELEMENT**



**PACKAGE INFORMATION**

Device	Package	Shipping
MB05S-MB10S	MBS	3000/Tape&Reel