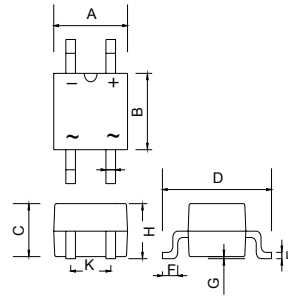


FEATURES

- Glass: passivated chip junctions
- High surge overload rating: 30A peak
- Saves space on printed circuit boards
- Plastic material has U/L flammability classification 94V-0
- High temperature soldering guaranteed: 260°C/10 seconds at 5 lbs. (2.3kg) tension



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

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 ¹⁾ 0.8 ²⁾						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 ² 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

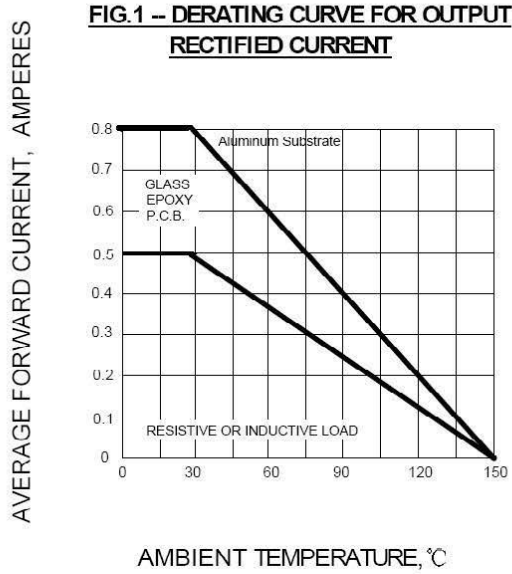


FIG.2 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

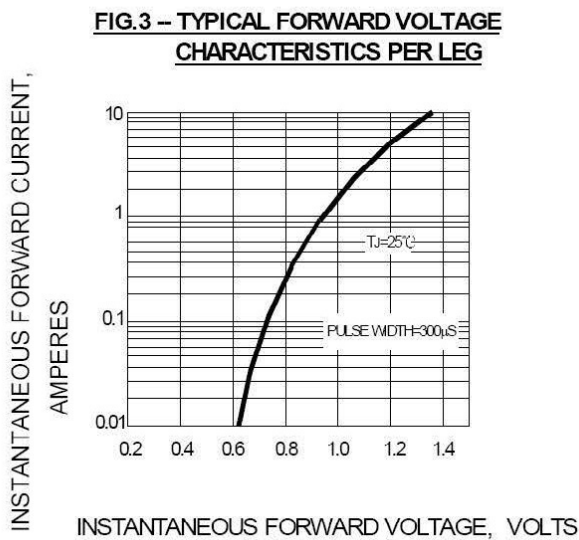
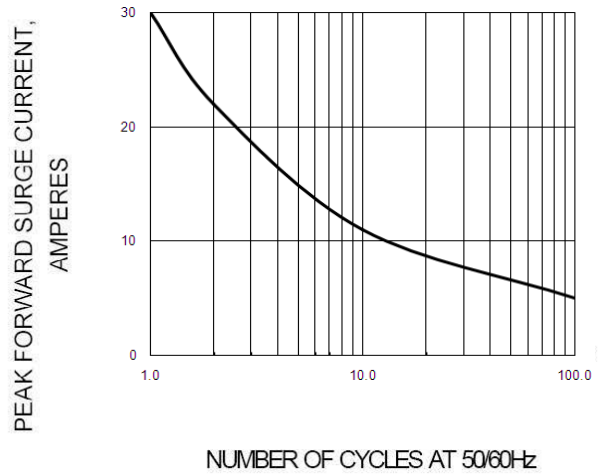


FIG.4 – TYPICAL REVERSE CHARACTERISTIC

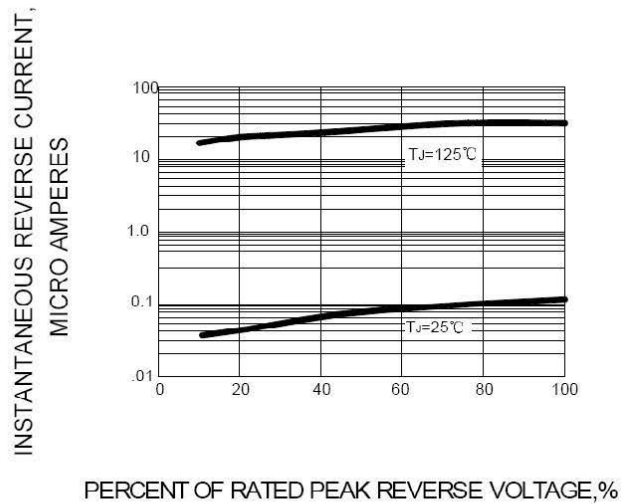
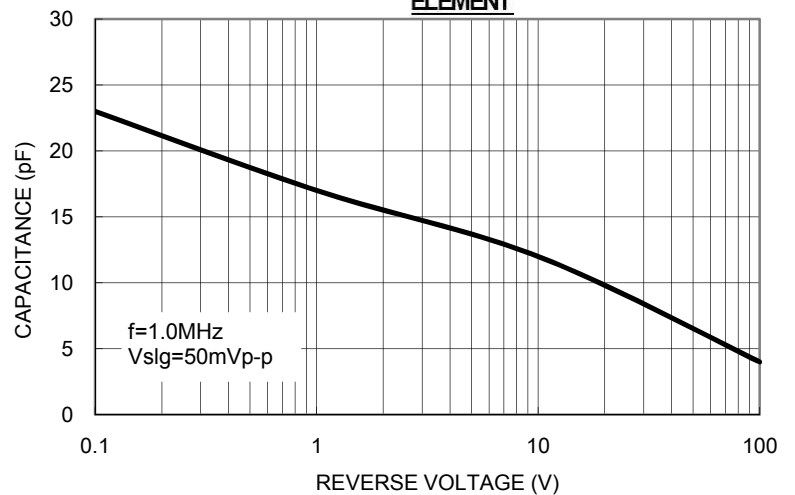


FIG.5 – TYPICAL JUNCTION CAPACITANCE PER ELEMENT



PACKAGE INFORMATION

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