

MBF		
Dim	Min	Max
A	4.6	5
B	3.6	4.0
C	1.2	1.6
D	6.5	7.0
E	0.15	0.35
F	0.7	1.1
I	0.5	0.8
K	2.3	2.7
All Dimensions in mm		

## FEATURES

- Glass: passivated chip junctions
- High surge overload rating: 30A peak
- Saves space on printed circuit boards
- 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	MB05F	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	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	$I_{F(AV)}$	0.8 1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	30							A
Current squared time $t < 8.3ms$ , $T_a = 25^\circ C$	$I^2t$	3.7							A <sup>2</sup> s

## Thermal Characteristics

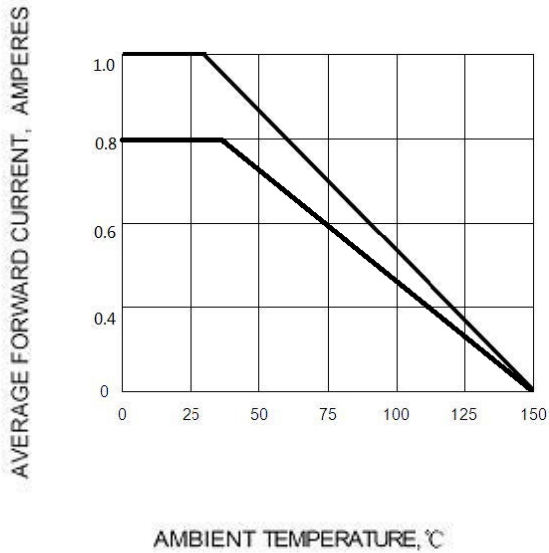
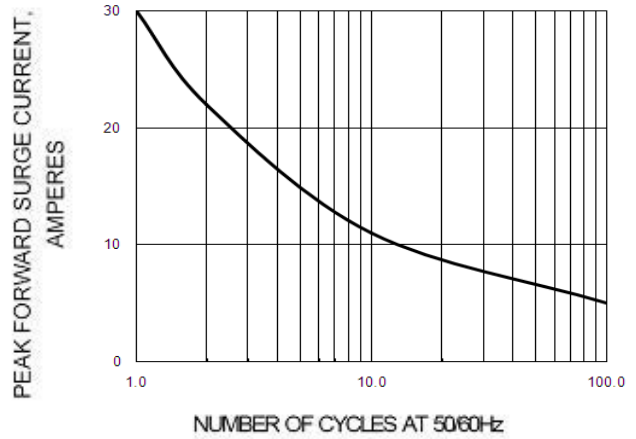
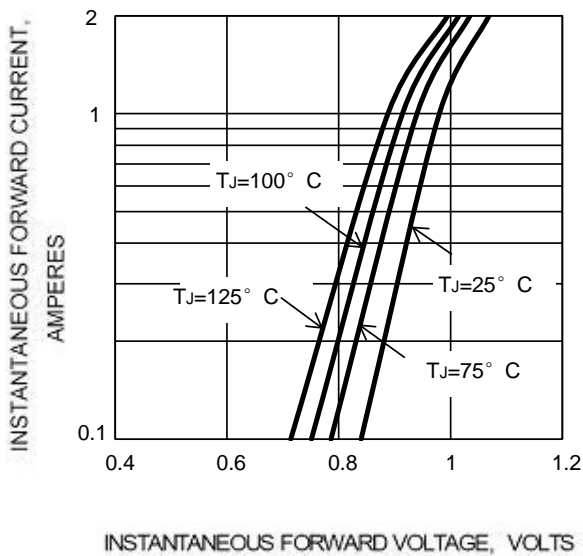
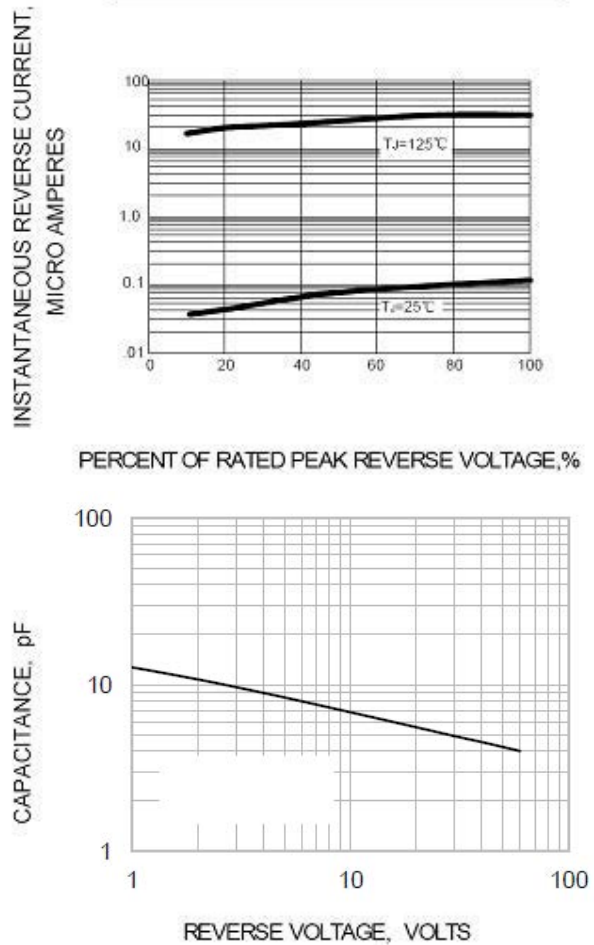
Characteristic	Symbol	MB4F	MB6F	MB8F	MB10F	UNITS	
Typical junction capacitance per leg (NOTE 1)	$C_J$	8					p F
Typical thermal resistance per leg (Note 2))	$R_{\theta JA}$	67				°C/W	
	$R_{\theta JC}$	24					
	$R_{\theta JL}$	13					
Operating junction temperature range	$T_J$	- 55 ---- + 150				°C	
Storage temperature range	$T_{STG}$	- 55 ---- + 150				°C	

Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
2. Device mounted on PCB with 10 mm x 20 mm x 0.1mm copper pad areas

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

Characteristic	Symbol	MB4F	MB6F	MB8F	MB10F	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=100°C	$I_R$	5.0				μ A
		0.1				m A

**FIG.1 – DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**

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

**FIG.3 – TYPICAL FORWARD VOLTAGE CHARACTERISTICS PER LEG**

**FIG.4 – TYPICAL REVERSE CHARACTERISTIC**


Device	Package	Shipping
MB4F--MB10F	MBF	5000/Tape&Reel