



# MB05F(GW)-MB10F(GW) SURFACE MOUNT BRIDGE RECTIFIERS

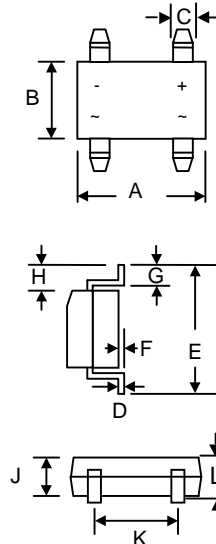
## Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Surge Current Capability
- Designed for Surface Mount Application
- Plastic Material – UL Flammability 94V-O
- UL Recognized File # E476623

## Mechanical Data

- Case: MBF(GW), Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Weight: 0.134 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version,**

## MB-F



Dim	Min	Max
A	4.65	4.95
B	3.60	4.10
C	0.60	0.80
D	0.15	0.35
E	6.40	7.00
F	—	0.20
G	0.50	1.10
H	1.30	1.70
J	1.20	1.40
K	2.30	2.70
L	—	1.65
All Dimensions in mm		

## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.  
Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

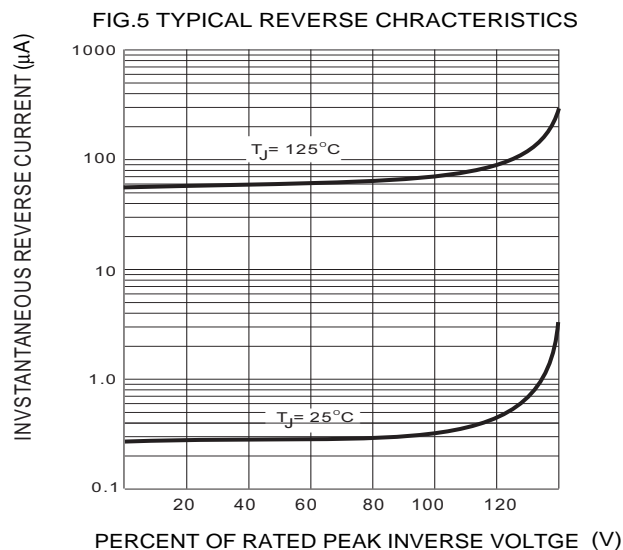
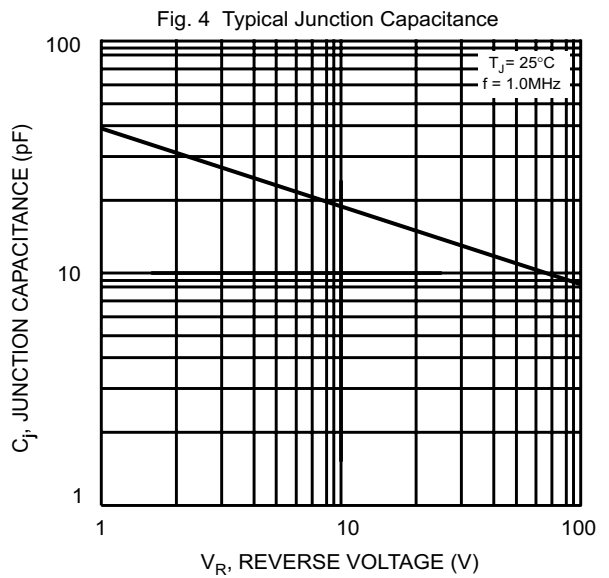
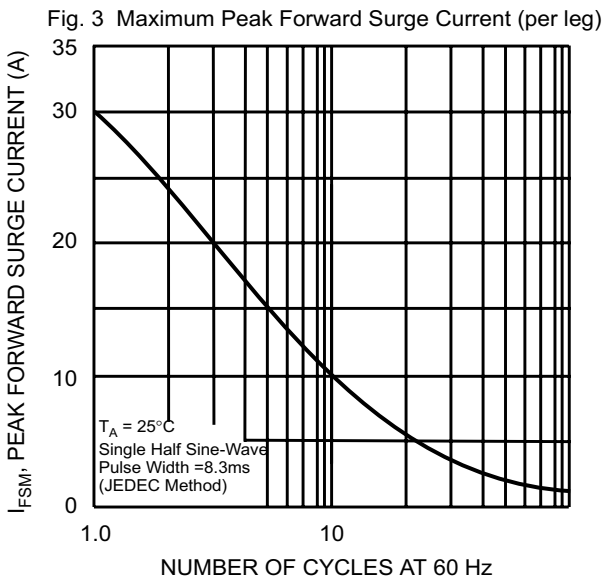
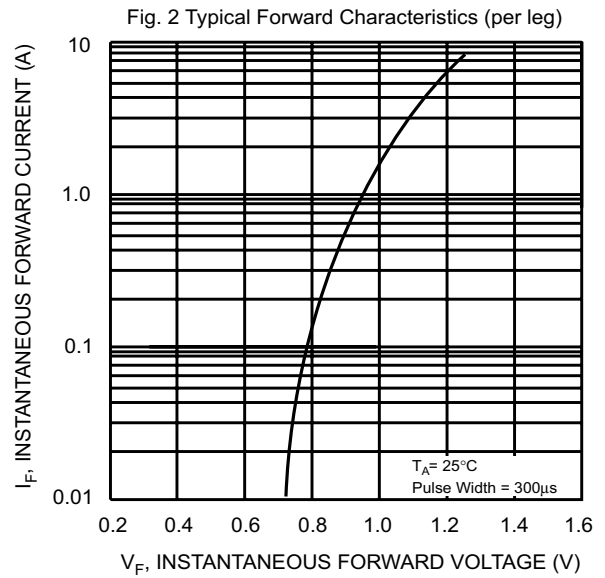
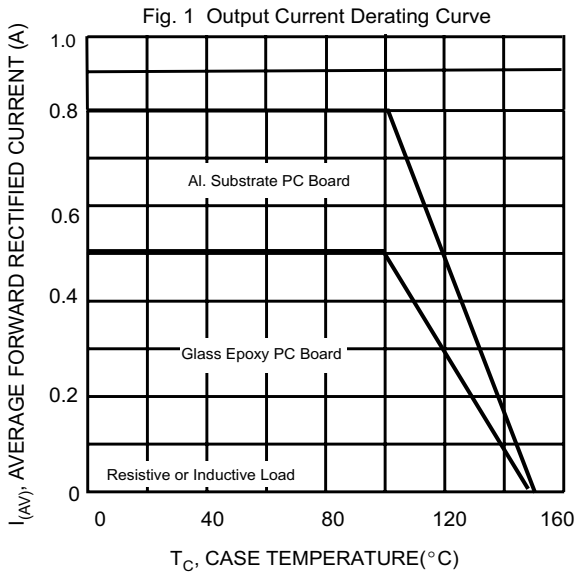
TYPE NUMBER	SYMBOL	MB05F	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$								V
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000	
DC Blocking Voltage	$V_{DC}$								
RMS Reverse Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)@ $T_c=100^\circ\text{C}$ (Note 2)@ $T_c=100^\circ\text{C}$	$I_F(AV)$				0.5 0.8				A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$				30				A
$I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$				3.735				$A^2s$
Forward Voltage per element @ $I_F=0.5A$ @ $I_F=0.8A$	$V_{FM}$				0.95 1.0				V
Peak Reverse Current @ $T_A=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	$I_R$				5.0 200				$\mu A$
Typical Junction Capacitance per leg (Note3)	$C_J$				13				pF
Typical Thermal Resistance per leg	$R_{\theta JA}$				60				$^\circ\text{C/W}$
	$R_{\theta JL}$				16				
Operating and Storage Temperature Range	$T_J, T_{STG}$				-55to+150				$^\circ\text{C}$

Note:1. Mounted on glass epoxy PC board with  $1.3\text{mm}^2$  solder pad.  
2. Mounted on aluminum substrate PC board with  $1.3\text{mm}^2$  solder pad.  
3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



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## Characteristic Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)



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