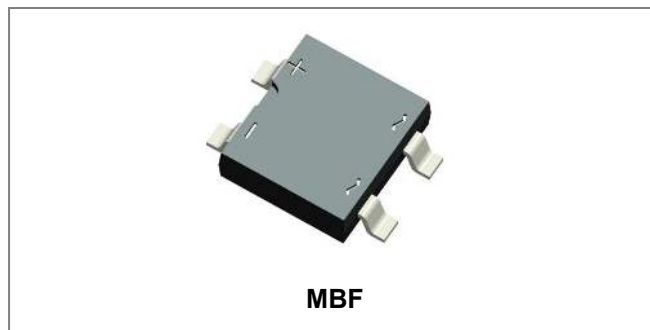


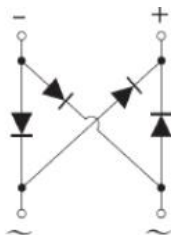
## MB05F THRU MB10F SINGLE PHASE 0.8AMP SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER



### 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-0
- This is a Pb – Free Device
- “-HF” suffix is for Halogen Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Circuit Diagram



### Mechanical Data

- Case: MBF, Molded plastic
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting Position: Any
- Lead Free: For RoHS / Lead Free Version

### Maximum Ratings @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Type Number	Symbol	MB05F	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	Units	
MB05F-HF THRU MB10F-HF Marking Code		MB05FH	MB1FH	MB2FH	MB4FH	MB6FH	MB8FH	MB10FH		
Peak Repetitive Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{DC}$	50	100	200	400	600	800	1000	V	
RMS Voltage	$V_{RMS}$	35	70	140	280	420	480	700	V	
Average Rectified Output Current (Note1)@ $T_A=40^{\circ}\text{C}$ (Note 2)@ $T_A=40^{\circ}\text{C}$	$I_o$					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

**Electrical Characteristics: @ $T_A=25^\circ\text{C}$  unless otherwise specified**

Type Number	Symbol	MB05F	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	Units
MB05F-HF THRU MB10F-HF Marking Code		MB05FH	MB1FH	MB2FH	MB4FH	MB6FH	MB8FH	MB10FH	
Forward Voltage per element @ $I_F=0.8\text{A}$	$V_{FM}$	1.1							V
Peak Reverse Current @ $T_A=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	$I_R$	5 500							$\mu\text{A}$
Typical Junction Capacitance (Note 3)	$C_j$	13							pF

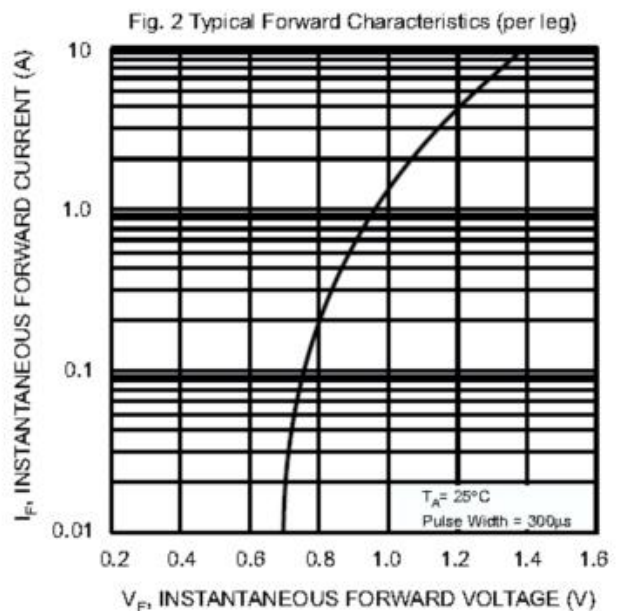
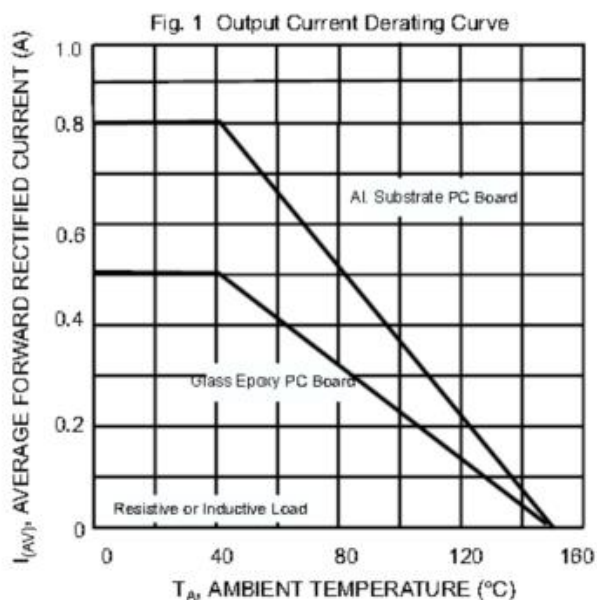
\* Pulse width < 300  $\mu\text{s}$ , duty cycle < 2%

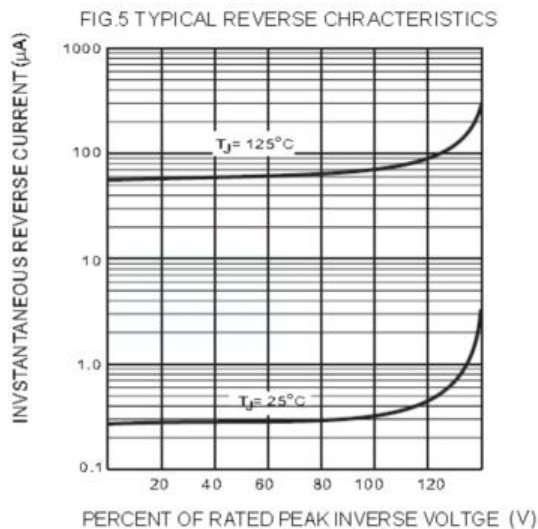
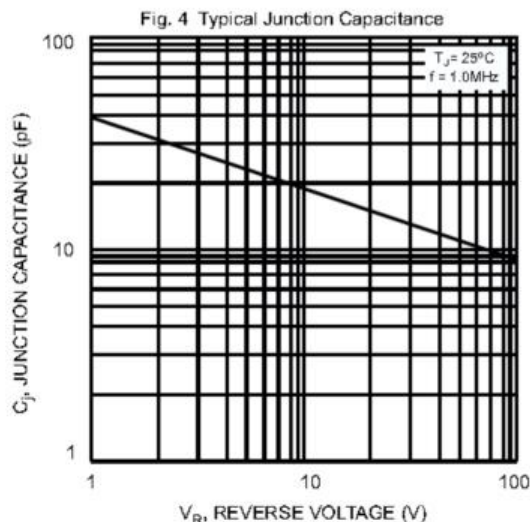
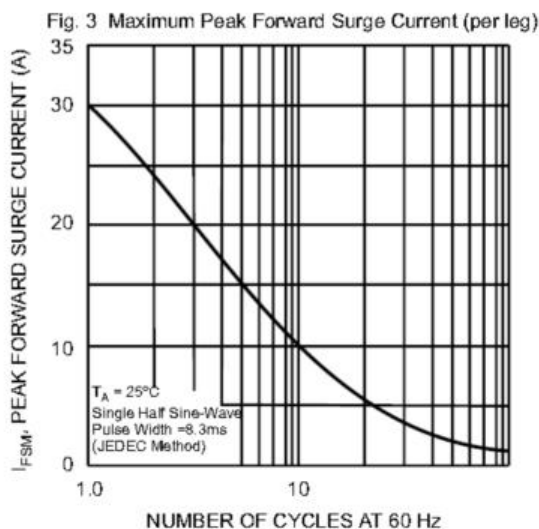
**Thermal-Mechanical Specifications: @ $T_A=25^\circ\text{C}$  unless otherwise specified**

Type Number	Symbol	MB05F	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	Units
MB05F-HF THRU MB10F-HF Marking Code		MB05FH	MB1FH	MB2FH	MB4FH	MB6FH	MB8FH	MB10FH	
Typical Thermal Resistance per leg	$R_{\theta JA}$	60							$^\circ\text{C}/\text{W}$
	$R_{\theta JL}$	16							
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55+150							$^\circ\text{C}$

Note: 1. Mounted on glass epoxy PC board with 1.3mm<sup>2</sup> solder pad.  
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
 3. Thermal Resistance From Junction to Ambient

**Ratings and Characteristics Curves**



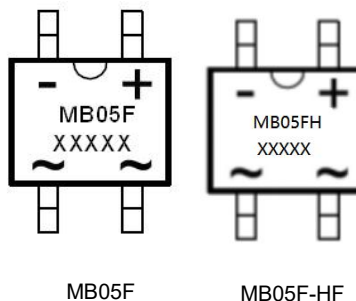


### Ordering Information

Device	Package	Plating	Shipping
MB05F THRU MB10F	MBF	Pure Sn	5000pcs / reel
MB05FTR THRU MB10F TR	MBF	Pure Sn	5000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

### Marking Diagram

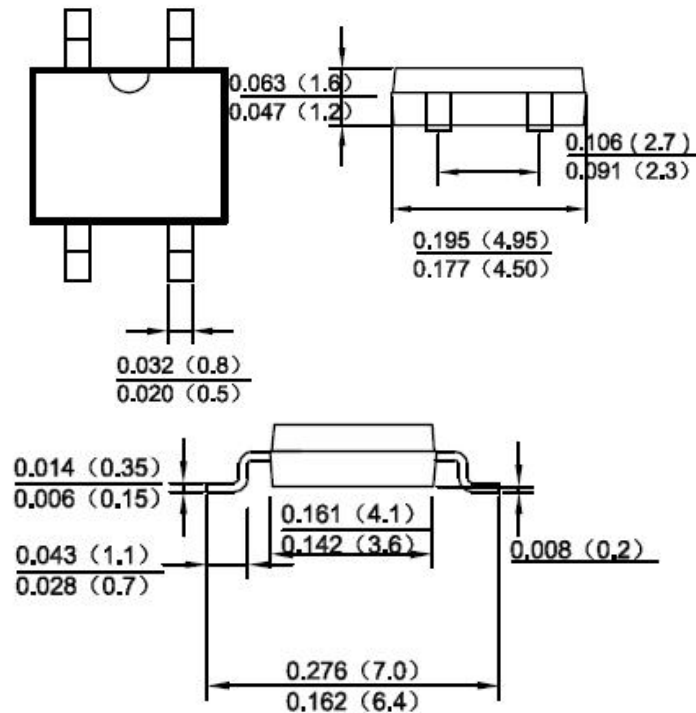


Where XXXXX is YYWWL

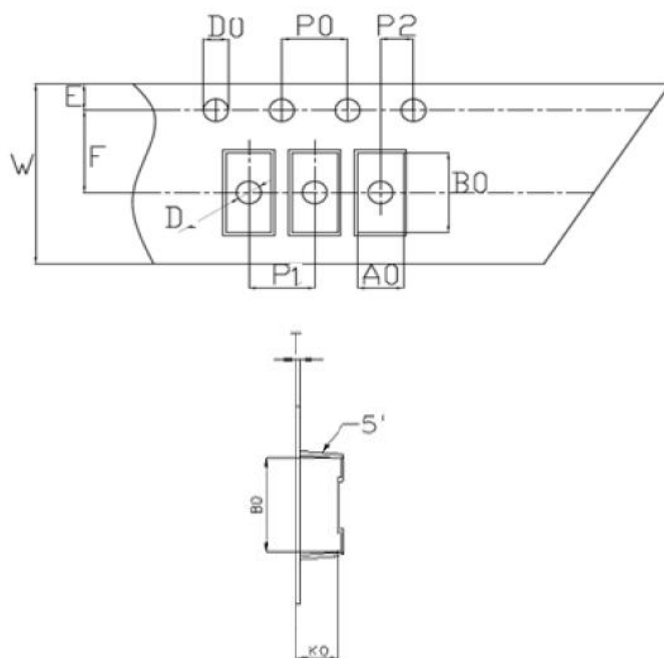
MB05F = Type Number  
 MB05FH = Marking Code  
 YY = Year  
 WW = Week  
 L = Lot Number

**Cautions:** Molding resin  
 Epoxy resin UL:94V-0

**Mechanical Dimensions MBF(Inches/Millimeters)**



**Carrier Tape & Reel Specification MBF**



SYMBOL	Millimeters	
	Min.	Max.
A0	5.21	5.41
B0	7.10	7.30
D0	1.50	1.60
D1	1.40	1.60
P0	3.90	4.10
P1	7.90	8.10
P2	1.95	2.05
E	1.65	1.85
K0	1.55	1.75
F	5.45	5.55
W	11.90	12.10
T	0.24	0.30
10P0	39.80	40.20

**Technical Data  
Data Sheet N1456, Rev. B**



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