

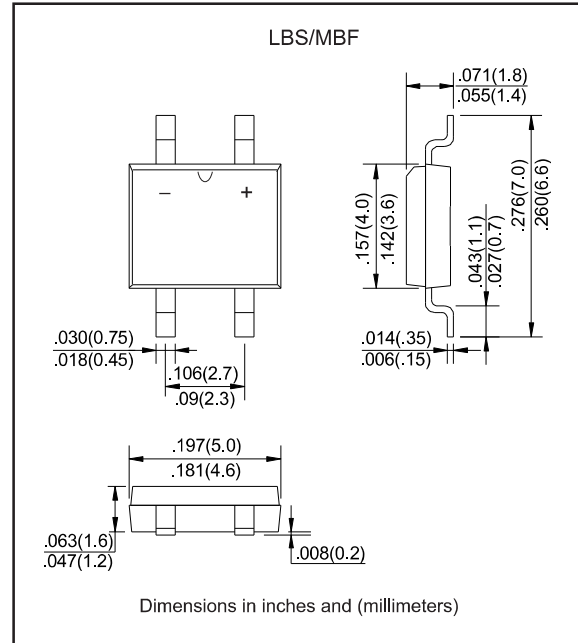
### Features

- Surge overload ratings to 30 amperes peak.
- Save space on printed circuit board.
- Ideal for automated replacement.
- Reliable low cost construction utilizing molded plastic technology results in inexpensive product.
- Glass passivated chip junctions.
- Lead-free parts meet RoHS requirements.
- Compliant to Halogen-free

### Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, LBS/MBF
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : marked on body
- Mounting Position : Any

### Package outline



### Maximum ratings and Electrical Characteristics (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	On aluminum substrate	$I_O$			0.8	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	$I_{FSM}$			30	A
Reverse current	$V_R = V_{RRM}$ $T_J = 25^{\circ}\text{C}$	$I_R$			5.0	uA
	$V_R = V_{RRM}$ $T_J = 125^{\circ}\text{C}$				200	
Thermal resistance	Junction to ambient	$R_{\theta JA}$		60		$^{\circ}\text{C}/\text{W}$
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	$C_J$		13		pF
Storage temperature		$T_{STG}$	-55		+150	$^{\circ}\text{C}$

SYMBOLS	$V_{RRM}^{*1}$ (V)	$V_{RMS}^{*2}$ (V)	$V_R^{*3}$ (V)	$V_F^{*4}$ (V)	Operating temperature $T_J$ , ( $^{\circ}\text{C}$ )
MB05F	50	35	50	1.00	-55 to +150
MB1F	100	70	100		
MB2F	200	140	200		
MB4F	400	280	400		
MB6F	600	420	600		
MB8F	800	560	800		
MB10F	1000	700	1000		

\*1 Repetitive peak reverse voltage

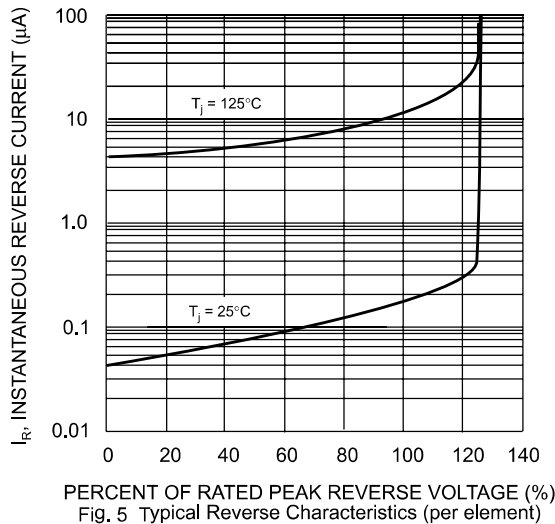
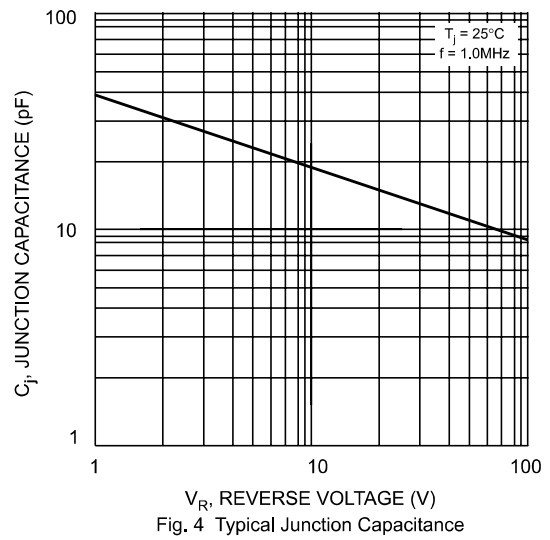
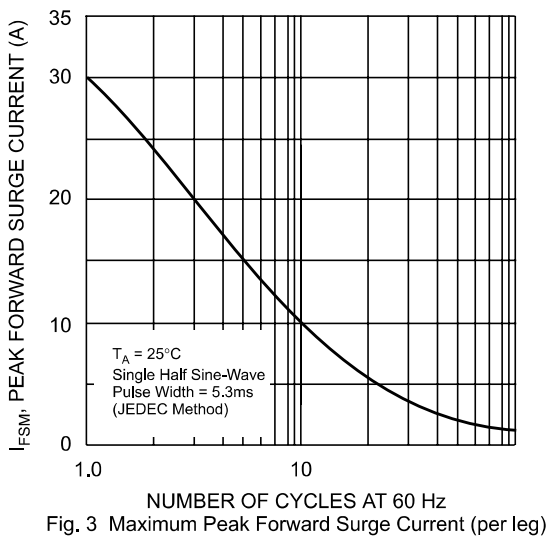
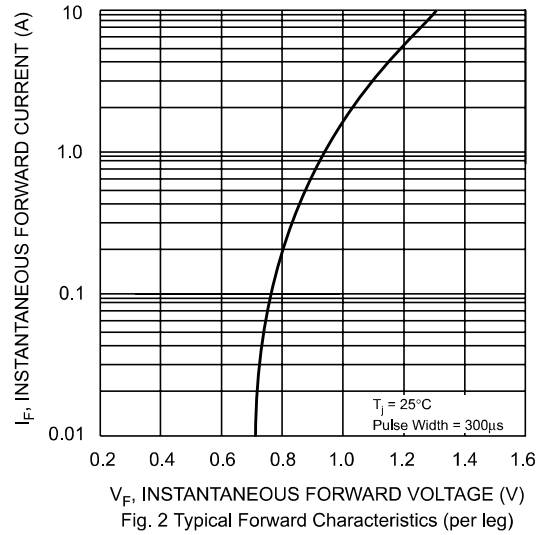
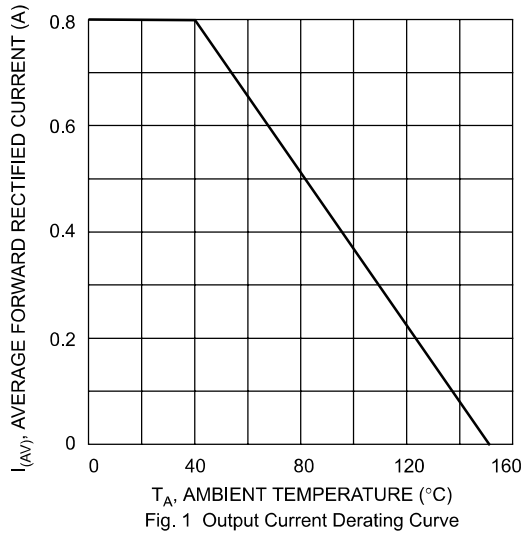
\*2 RMS voltage

\*3 Continuous reverse voltage

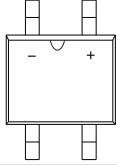
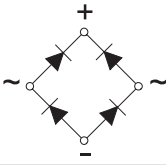
\*4 Maximum forward voltage

per element at 0.8A peak

## Rating and characteristic curves (MB05F THRU MB10F)



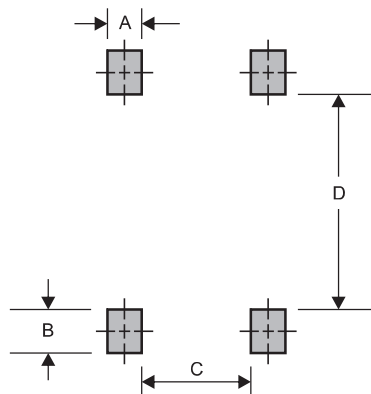
## Pinning information

Simplified outline	Symbol
	

## Marking

Type number	Marking code
MB05F	MB05F
MB1F	MB1F
MB2F	MB2F
MB4F	MB4F
MB6F	MB6F
MB8F	MB8F
MB10F	MB10F

## Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C	D
LBS/MBF	0.023 (0.58)	0.030 (0.76)	0.070 (1.78)	0.226 (5.75)