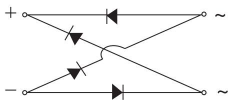
TRR®

MB105F thru MB110F

Surface Mount Flat Bridge Rectifiers

RoHS
COMPLIANT

MBF



Features

- Low forward voltage drop
- Glass passivated chip junction
- Ideal for automated placement
- Low profile space
- Low leakage current
- High forward surge capability
- High temperature soldering:
  260℃/10 seconds at terminals
- Component in accordance to
  RoHS 2011/65/EU and WEEE 2002/96/EC

Mechanical Date

- **Case:**MBF
  Epoxy meets UL 94 V-0 flammability rating
- **Terminals:**Plated leads, solderable per
  MIL-STD-750, Method 2026
- **Polarity:** Polarity symbols marked on body

Major Ratings and Characteristics

$I_{F(AV)}$	**1.2A**
V_{RRM}	**50V to 1000V**
I_{FSM}	**35A**
I_R	**5μA**
V_F	**1.1V**
$T_{Jmax.}$	**150℃**

Maximum Ratings & Thermal Characteristics (T$_A$ = 25 °C unless otherwise noted)

Items	Symbol	MB 105F	MB 11F	MB 12F	MB 14F	MB 16F	MB 18F	MB 110F	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current @T$_L$=110℃	$I_{F(AV)}$	1.2							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	35							A
Thermal resistance from junction to ambient	$R_{\theta JA}$ (1)	85							
Thermal resistance from junction to lead	$R_{\theta JL}$ (1)	20							
Operating junction and storage temperature	T_J, T_{STG}	–55 to +150							℃

Electrical Characteristics (T$_A$ = 25 °C unless otherwise noted)

Items	Test conditions		Symbol	Min	Typ	Max	Unit
Instantaneous forward voltage drop per leg	I_F=1.0A		V_F	-	-	1.1	V
Reverse current	V_R=V_{DC}	T_A=25℃	I_R	-	-	5	μA
		T_A=125℃		-	-	100	
Typical junction capacitance per leg	f=1.0MHZ,V_R=4.0V		C_J	-	13	-	pF

Notes:1.Unitls mounted on P.C.B with 0.05 x 0.05" (1.3 x 1.3 mm) pads

Characteristic Curves (T$_A$=25 ℃ unless otherwise noted)

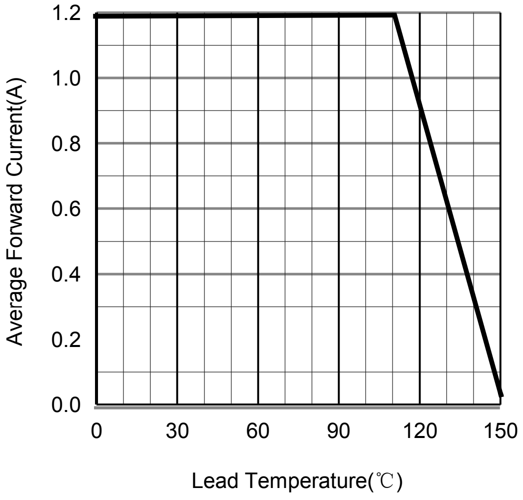


Fig.1 Forward Current Derating Curve

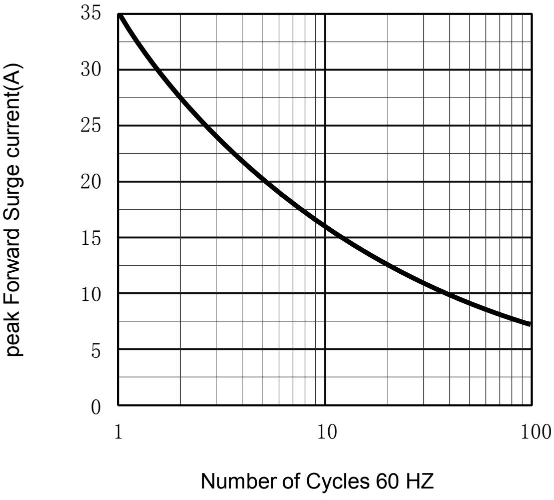


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

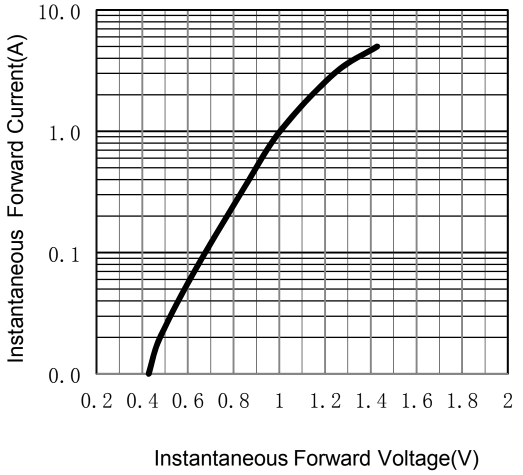


Fig.3 Typical Instantaneous Forward Characteristics

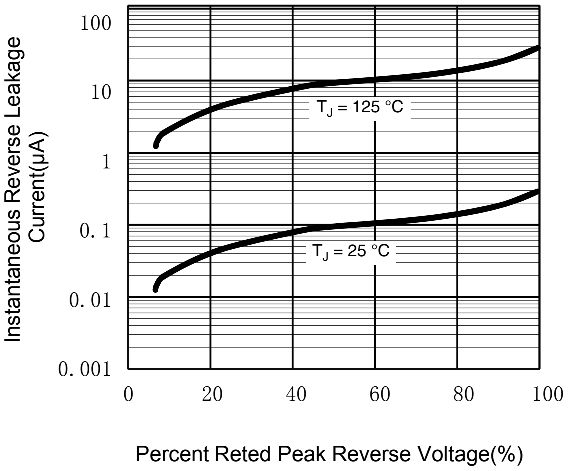
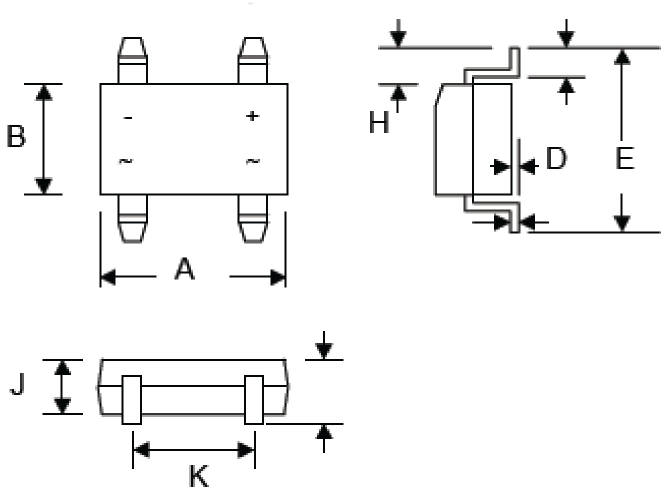


Fig.4 Typicl Reverse Leakage Characteristics

Package Outline



MBF

Dim	Min	Max
A	4.50	4.95
B	3.60	4.10
C	0.15	0.35
D	—	0.20
E	6.40	7.00
G	0.50	1.10
H	1.30	1.70
J	1.20	1.60
K	2.30	2.70
L	—	1.80
All Dimensions in mm		