

FEATURES

- | Ideal For Surface Mount Application
- | The Plastic Material Used Carries Underwriters Laboratory Flammability Recognition 94V-0
- | Surge Overload Ratings to 30 Amperes



MBF

MECHANICAL DATA

- | Case: Molded Plastic
- | Polarity: Marked On Body
- | Mounting Position: Any

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

MAXIMUM RATINGS AND CHARACTERISTICS (T_A=25°C)

Parameter	Symbol	MB05F	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	Unit
Marking		MB05F	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum Rms Bridge Input Voltage	V _{RMS}	35	70	140	280	420	560	700	
Maximum Dc Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	
Maximum Average Forward Rectified Output Current at T _a =40°C	I _{F(AV)}	0.8						A	
Peak Forward Surge Current Single Sine-wave Superimposed On Rated Load (Jedec Method)	I _{FSM}	30						A	
Maximum Instantaneous Forward Voltage Drop Per Leg at 0.5A	V _F	1.1						V	
Maximum Dc Reverse Current At Rated DC Blocking Voltage Per Element	T _A =25°C	10						µA	
	T _A =125°C	500							
Typical Thermal Resistance Per Element (1)	R _{θJA}	110						°C/W	
Rating For Fusing (T<8.3ms)	I ² t	10						A ² sec	
Typical Junction Capacitance Per Element (2)	C _J	25.0						pF	
Operating Junction And Storage Temperature Range	T _J ,T _{STG}	-55 to +150						°C	

Notes: (1)Thermal Resistance From Junction To Ambient On P.C.Board Mounting.
 (2)Measured At 2.0mhz And Applied Reverse Voltage Of 4.0 Volts.

CHARACTERISTIC CURVES

Fig. 1- Derating Curve for Output Rectified Current

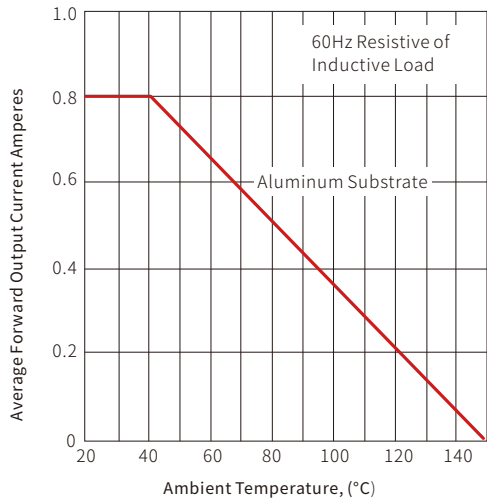


Fig. 2- Maximum Non-repetitive Peak Forward Surge Current

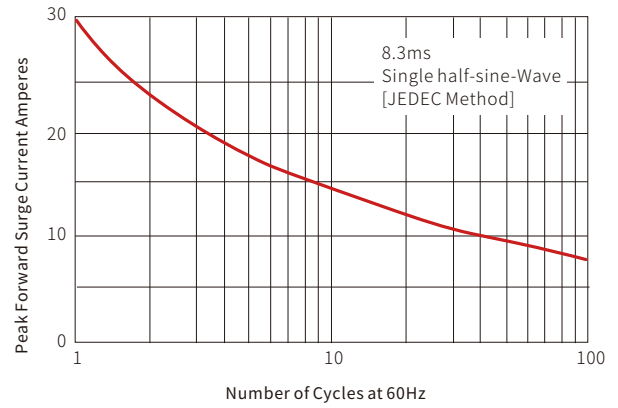


Fig. 3- Typical Instantaneous Forward Characteristics

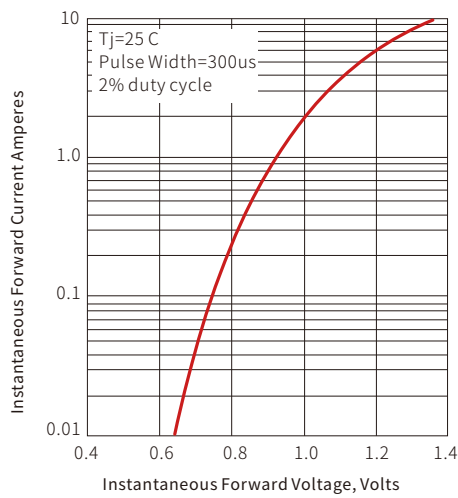


Fig. 4- Typical Revers Characteristics

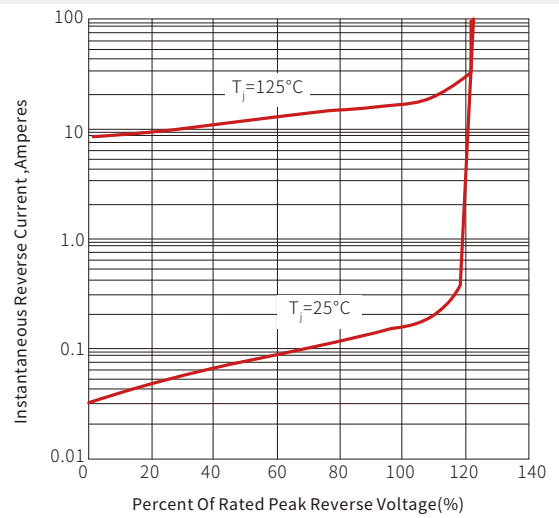
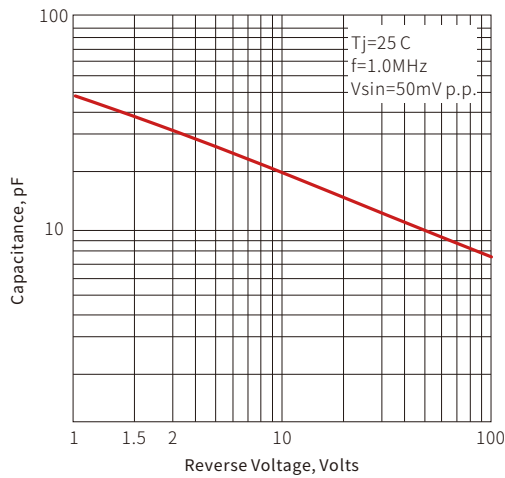
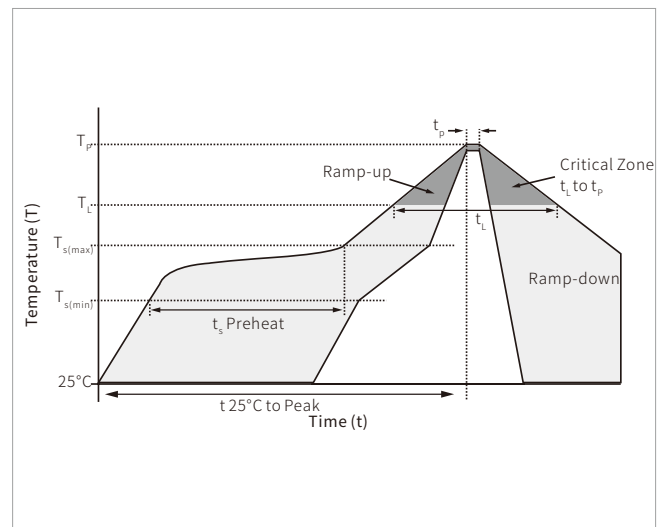


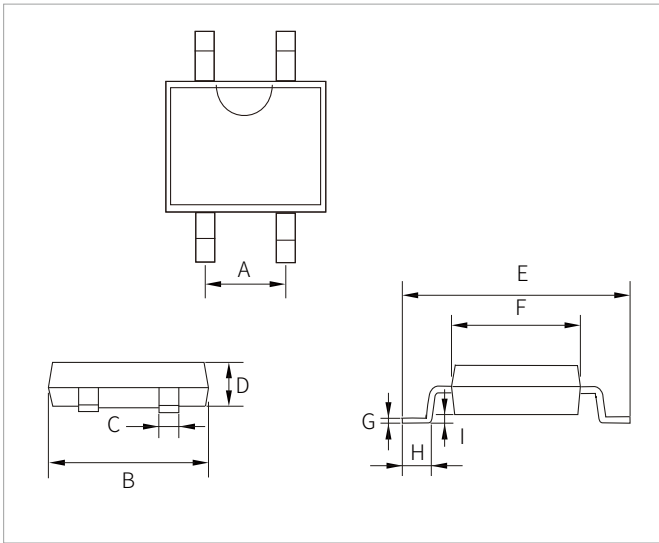
Fig. 5-Typical Junction Capacitance


SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(\text{min})}$)	150°C
	Temperature Max ($T_{s(\text{max})}$)	200°C
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/second max
$T_{s(\text{max})}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Time (min to max) (t_L)	60 – 150 seconds
Peak Temperature (T_p)		260°C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes max.
Do not exceed		260°C



MBF PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.30	2.70	0.091	0.106
B	4.50	4.90	0.177	0.193
C	0.50	0.70	0.020	0.028
D	1.20	1.60	0.047	0.063
E	7.00Max		0.276Max.	
F	3.60	4.00	0.142	0.157
G	0.10	0.30	0.004	0.012
H	0.70	1.10	0.028	0.043
I	0.2 Max.		0.008Max.	

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
MB05F-MB10F	MBF	5000PCS	13"

Headquarters

No.3387 Shendu Road
Pujiang I&E Park
Minhang Shanghai China
201000

Hotline

400-021-5756

Web

<https://www.semiware.com>

Sales Center

Tel: 86-21-3463-7458
Email: sales18@semiware.com

Customer Service

Tel: 86-21-5484-1001
Email: sales17@semiware.com

Technical Support

Tel: 86-21-3463-7654
Email: fae01@semiware.com

Complaint & Suggestions

Tel: 86-21-3463-7172
Ext: 8868
Email: cs03@semiware.com

By QR Code

Website



Wechat

To find your local partner within Semiware' s global website: www.semiware.com

© 2022 Semiware Semiconductor Inc.

The content of this document has been carefully checked and understood. However, neither Semiware nor its subsidiaries assume any liability whatsoever for any errors or inaccuracies of this document and the consequences thereof. Published specifications are subject to change without notice. Product suitability for any area of application must ultimately be determined by the customer. In all cases, products must never be operated outside their published specifications. Semiware does not guarantee the availability of all published products. This disclaimer shall be governed by substantive Chinese law and resulting disputes shall be settled by the courts at the place of business of Semiware. Latest publications and a complete disclaimer can be downloaded from the Semiware website. All trademarks recognized.