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							
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	I_R	10							μA
	T_A=125°C		500							
Typical Thermal Resistance Per Element (1)		$R_{\theta JA}$	110							°C/W
Rating For Fusing (T<8.3ms)		I^2t	10							A^2sec
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 Ambemt 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

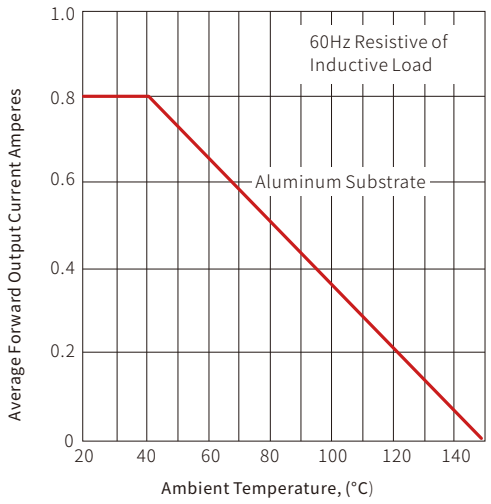


Fig. 2-Maximum Non-repetitive Peak Forward Surge Current

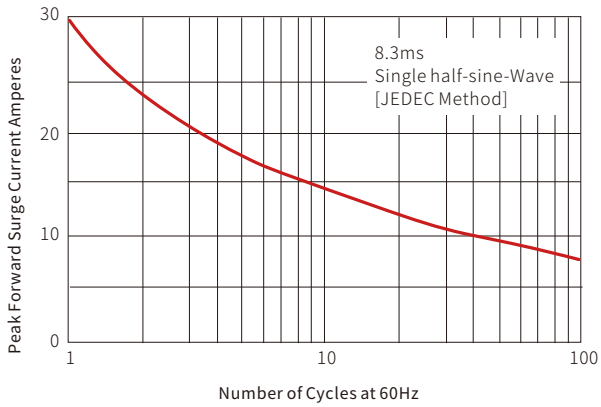


Fig. 3-Typical Instantaneous Forward Characteristics

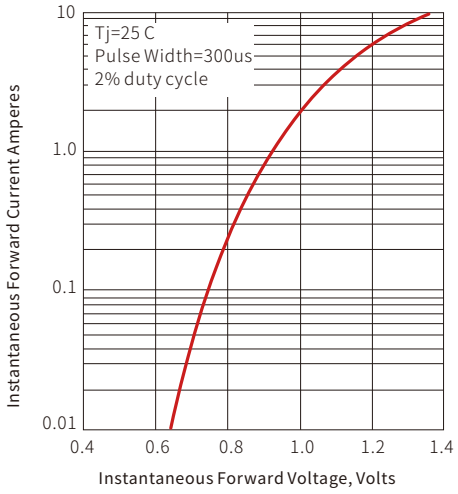


Fig. 4-Typical Revers Characteristics

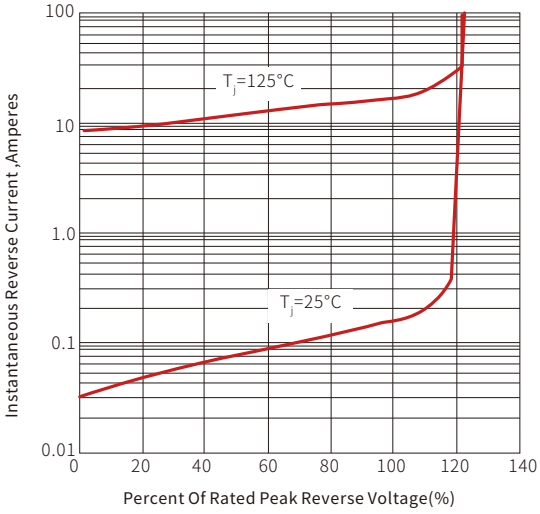
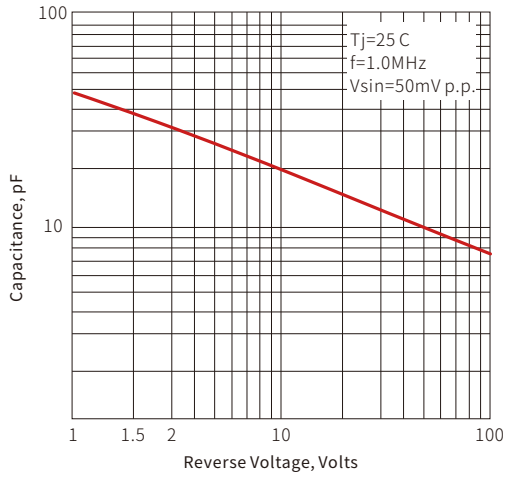
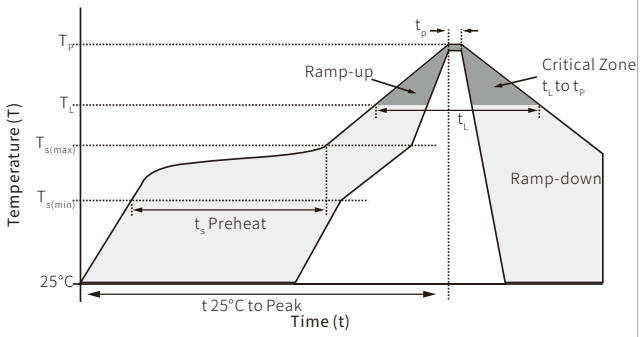


Fig. 5-Typical Junction Capacitance

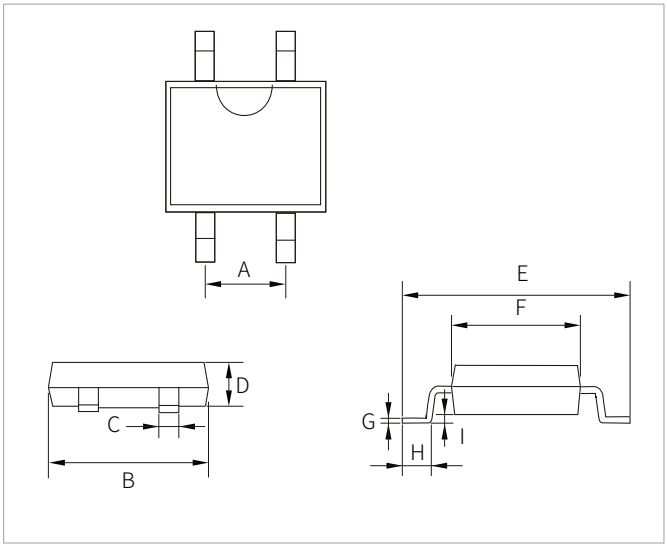


SOLDERING PARAMETERS

Reflow Condition		Lead–free assembly
Pre Heat	Temperature Max ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	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
	$T_{S(max)}$ 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”

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