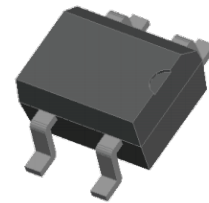


FEATURES

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



MBS

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	MB05S	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S	Unit
Marking		MB05S	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S	
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 0.8A	V _F	1.1							V
Maximum Dc Reverse Current At Rated DC Blocking Voltage Per Element	I _R	T _A =25°C							μA
		T _A =125°C							
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

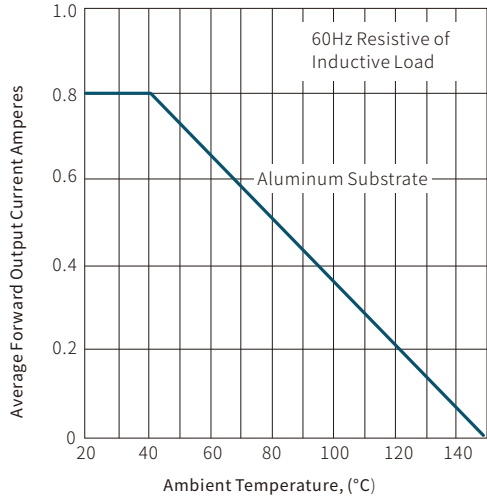


Fig. 2- Maximum Non-repetitive Peak Forward Surge Current

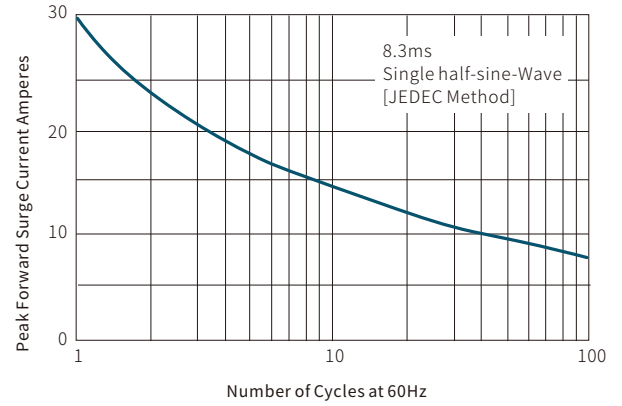


Fig. 3- Typical Instantaneous Forward Characteristics

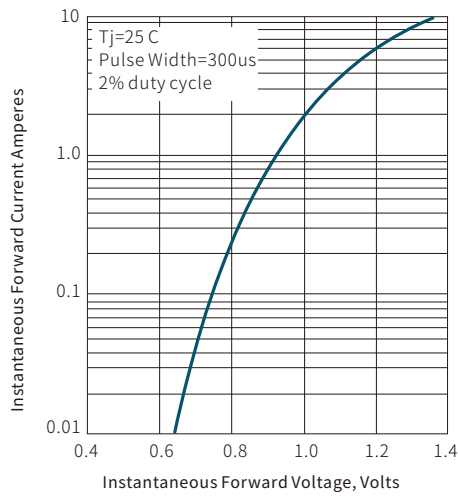


Fig. 4- Typical Revers Characteristics

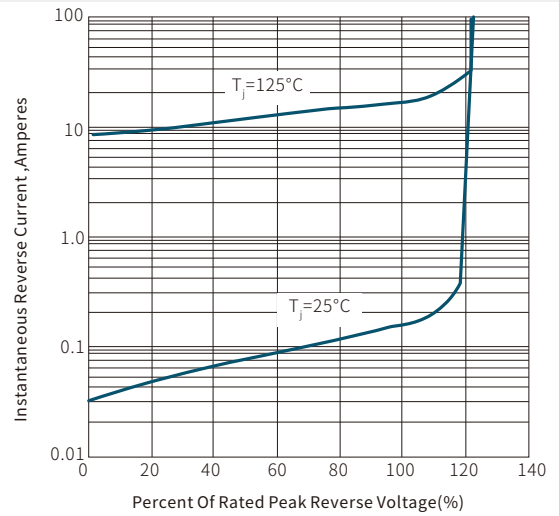
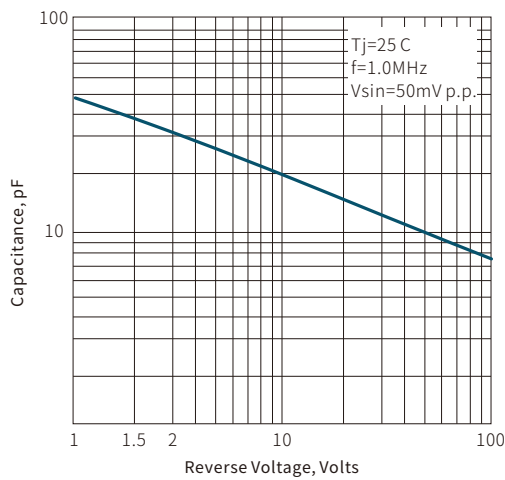
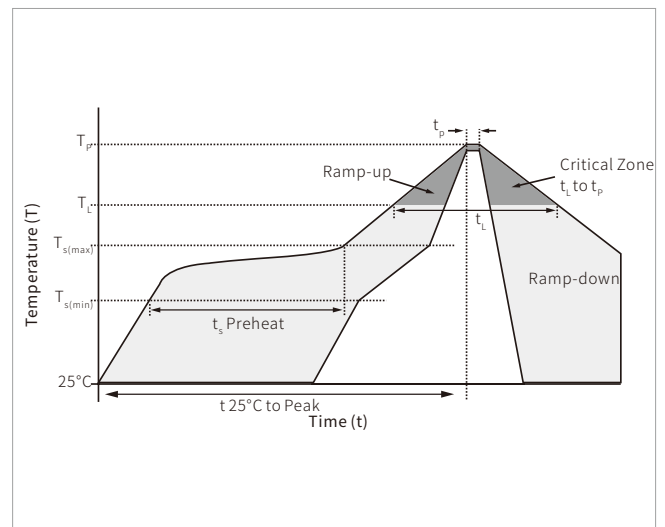


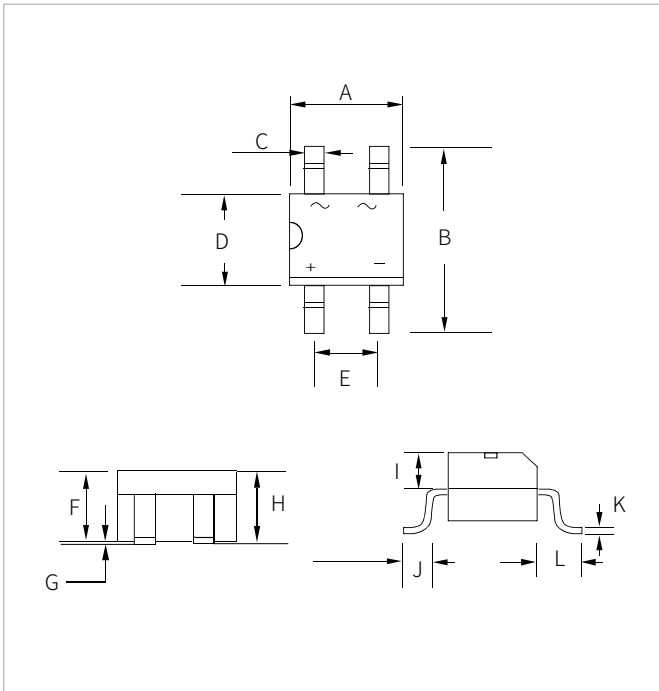
Fig. 5-Typical Junction Capacitance


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



MBS PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.50	4.90	0.177	0.193
B	7.00Max.		0.276Max.	
C	0.56	0.84	0.022	0.033
D	3.60	4.00	0.142	0.157
E	2.20	2.60	0.087	0.102
F	2.30	2.70	0.090	0.106
G	0.20Max.		0.008Max.	
H	3.0Max.		0.118Max.	
I	0.95	1.53	0.037	0.053
J	0.70	1.10	0.028	0.043
K	0.15	0.35	0.006	0.014
L	1.10	2.12	0.043	0.083

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
MB05S-MB10S	MBS	3000PCS	11"

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