

MB05S-08 THRU MB10S-08

MBS 0.8 AMP Plastic-Encapsulate Bridge Rectifier

MBS Plastic-Encapsulate Bridge Rectifier

Features

- Ideal for printed circuit board
- Low forward voltage drop
- High surge current capability
- Glass passivated chip junction

Reverse Voltage
50-1000 V
Forward Current
0.8 Ampere

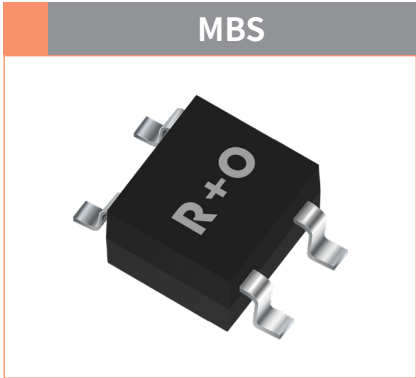
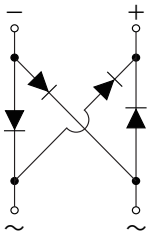
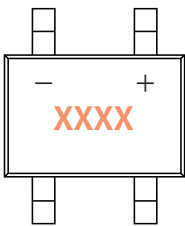
Applications

General purpose 1 phase Bridge rectifier applications

Mechanical Data

- Case: MBS
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Function Diagram



Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MB05S-08	MB1S-08	MB2S-08	MB4S-08	MB6S-08	MB8S-08	MB10S-08
Device marking code			MB05S8	MB1S8	MB2S8	MB4S8	MB6S8	MB8S8	MB10S8
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load, TL (Fig.1)	$I_{F(AV)}$	A	0.8						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	25						
Rating for fusing (t=8.3ms, Ta=25 °C)	I^2t	A ² S	2.6						
Storage temperature	T_{stg}	°C	-55 ~ +150						
Junction temperature	T_j	°C	-55 ~ +150						
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	75						
	$R_{\theta J-L}$	°C /W	20						

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Electrical Characteristics (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	MB05S-08	MB1S-08	MB2S-08	MB4S-08	MB6S-08	MB8S-08	MB10S-08
Maximum instantaneous forward voltage	$I_F=0.4A$	V_F	V	1.0						
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}, T_A=25^{\circ}C$	I_{R1}	μA	5.0						
	$V_R=V_{DC}, T_A=125^{\circ}C$	I_{R2}	μA	500						

Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)

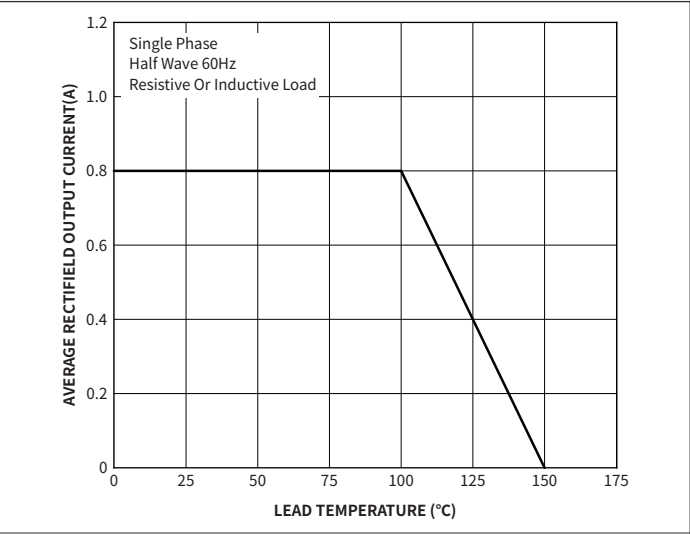


Fig.1 Forward Current Derating Curve

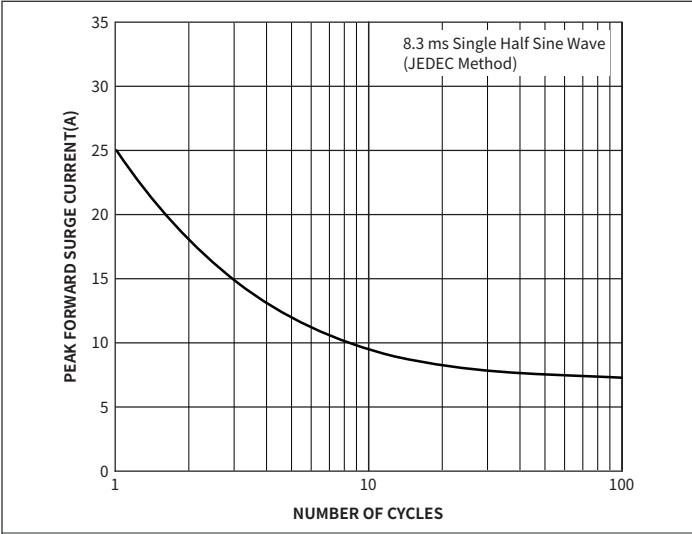


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

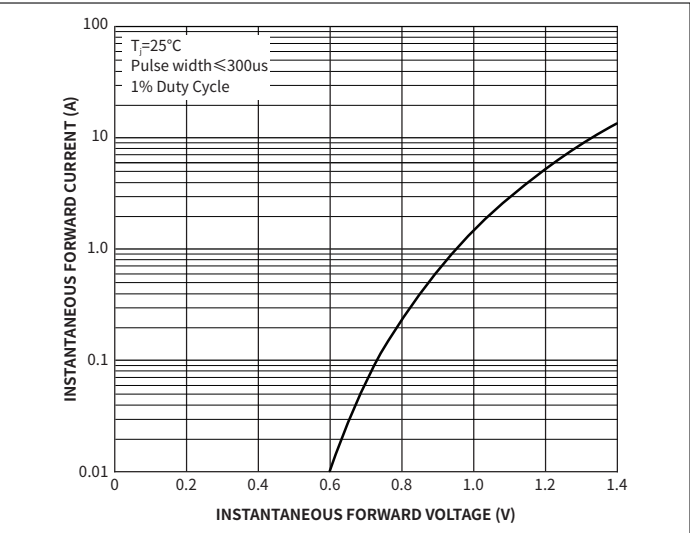


Fig.3 Typical Forward Voltage

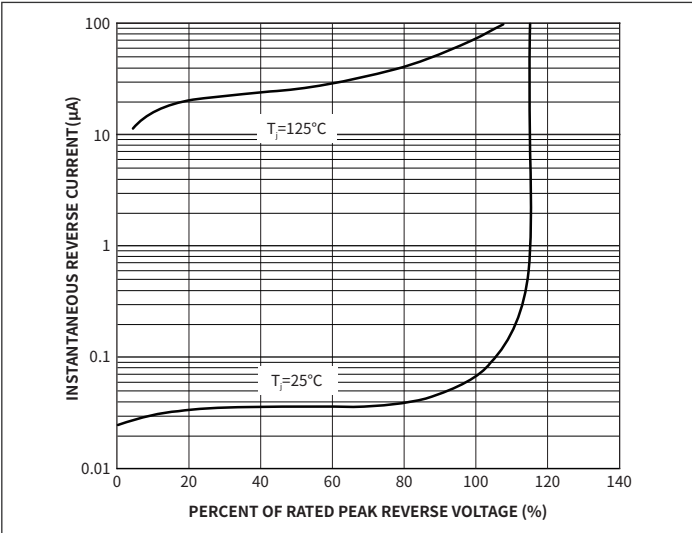


Fig.4 Typical Reverse Characteristics

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Ordering Information

PACKAGE	PACKAGE CODE	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
MBS	R3	3000	6000	48000	13"

Package Outline Dimensions (MBS)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.5	4.9	0.177	0.193
A1	-	0.2	-	0.008
B	2.3	2.7	0.09	0.106
C	-	7.0	-	0.275
E	3.6	4.0	0.142	0.157
N	0.15	0.35	0.006	0.014
L	0.7	1.1	0.027	0.043
b	0.5	0.8	0.019	0.031
e	2.2	2.6	0.087	0.102

Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
N	6.0	6.2	0.236	0.244
M	2.4	2.6	0.094	0.102
X	1.84	2.0	0.072	0.079
Y	1.2	1.4	0.047	0.055