MB05S THRU MB10S

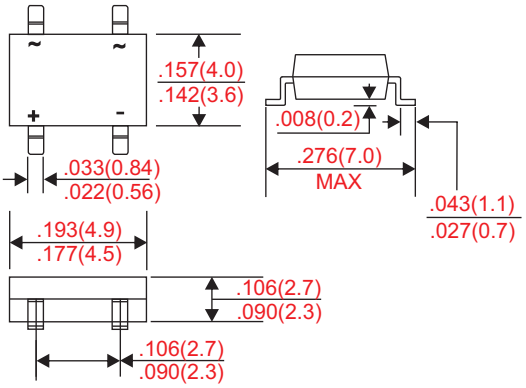
0.5 / 0.8A Miniature Glass Passivated Single-Phase Surface Mount Bridge Rectifiers

■ Features

- Surge overload ratings to 30 amperes peak.
- Save space on printed circuit board.
- Ideal for automated replacement.
- Reliable low cost construction utilizing molded plastic technology results in inexpensive product.
- Glass passivated chip junctions.
- Suffix "G" indicates Halogen-free part, ex.MB05SG.
- UL recognized file # E321971

■ Outline

MDS(TO-269AA)



Dimensions in inches and (millimeters)

■ Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, MDS / TO-269AA
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : marked on body
- Weight : 0.04 ounce, 1.0 gram

■ Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	at T_A = 30°C on glass-epoxy PCB	I_O			0.8 0.5	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			35	A
Reverse current	V_R = V_{RRM} T_A = 25°C	I_R			5.0	uA
	V_R = V_{RRM} T_A = 125°C				500	
Storage temperature		T_{STG}	-55		+150	°C

Symbol	Marking code	Max. repetitive peak reverse voltage V_{RRM} (V)	Max. RMS voltage V_{RMS} (V)	Max. DC blocking voltage V_R (V)	Max. forward voltage @0.4A, T_A = 25°C V_F (V)	Operating temperature T_J (°C)
MB05S	MB05S	50	35	50	1.0	-55 ~ +150
MB1S	MB1S	100	70	100		
MB2S	MB2S	200	140	200		
MB4S	MB4S	400	280	400		
MB6S	MB6S	600	420	600		
MB8S	MB8S	800	560	800		
MB10S	MB10S	1000	700	1000		

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Issued Date : 2010/05/05
Revised Date : 2012/05/31
Revision : C

■ Rating and characteristic curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

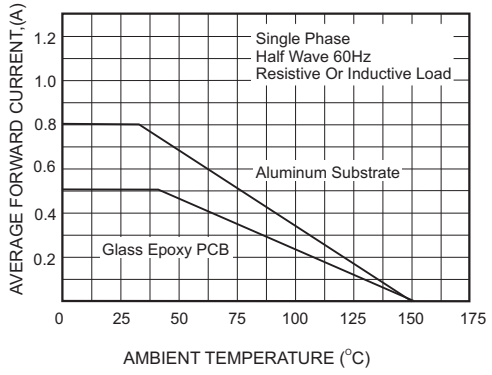


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

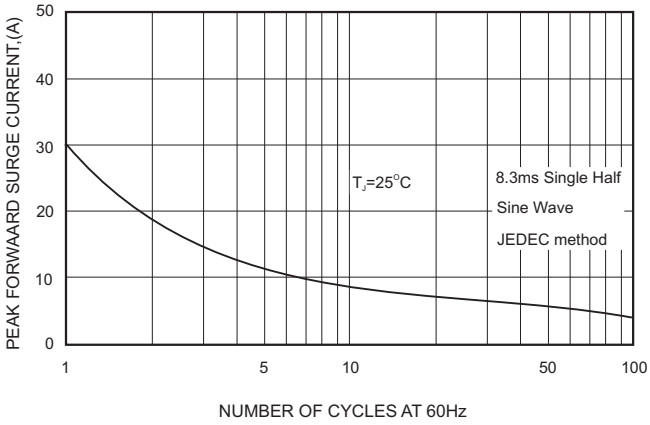


FIG.3-TYPICAL FORWARD CHARACTERISTICS

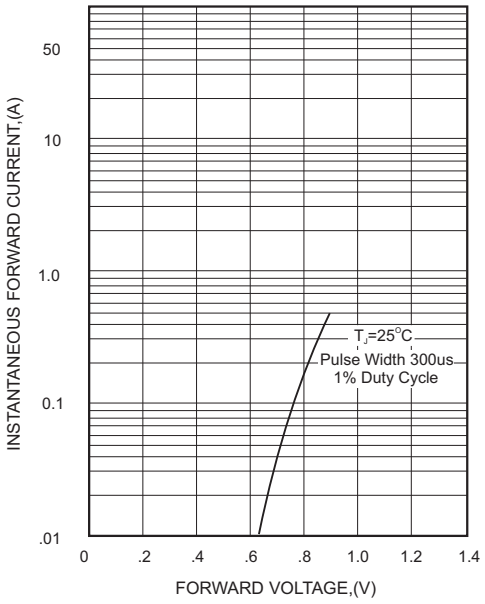
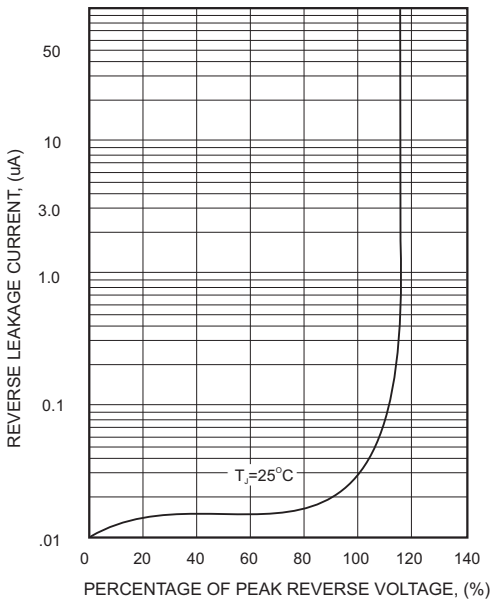
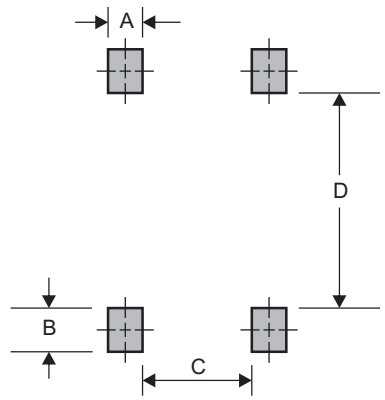


FIG.4-TYPICAL REVERSE CHARACTERISTICS



Document ID : DS-12B01
Issued Date : 2010/05/05
Revised Date : 2012/05/31
Revision : C

■ MDS(TO-269AA) foot print



A	B	C	D
0.030 (0.76)	0.059 (1.50)	0.070 (1.78)	0.226 (5.75)

Dimensions in inches and (millimeters)

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