

Bridge Rectifiers

Features

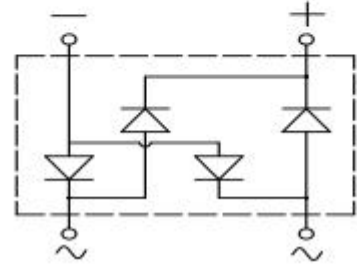
- UL recognition, file #E313149
- Ideal for automated placement
- High surge current capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

General purpose use in AC/DC bridge full wave rectification for power supply, lighting ballast, battery charger, home appliances, office equipment, and telecommunication applications.

Mechanical Data

- **Package:** MBS
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body



■ Maximum Ratings ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S
Device marking code			MB1S	MB2S	MB4S	MB6S	MB8S	MB10S
Repetitive peak reverse voltage	VRRM	V	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, $T_a=40^{\circ}\text{C}$	On alumina substrate	I_o	A	0.8				
	On glass-epoxy substrate			0.5				
Surge(non-repetitive)forward current @60Hz half sine wave, 1 cycle, $T_j=25^{\circ}\text{C}$	IFSM	A	30					
Current squared time @ $1\text{ms} \leq t \leq 8.3\text{ms}$, $T_j=25^{\circ}\text{C}$, rating of per diode	I^2t	A^2s	3.7					
Storage temperature	T_{stg}	$^{\circ}\text{C}$	-55 ~ +150					
Junction temperature	T_j	$^{\circ}\text{C}$	-55 ~ +150					

■ Electrical Characteristics ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S
Maximum instantaneous forward voltage drop per diode	V_F	V	$I_{FM}=0.4\text{A}$	1.00					
Maximum DC reverse current at rated DC blocking voltage per diode	IRRM	μA	$V_{RM}=V_{RRM}$	5					

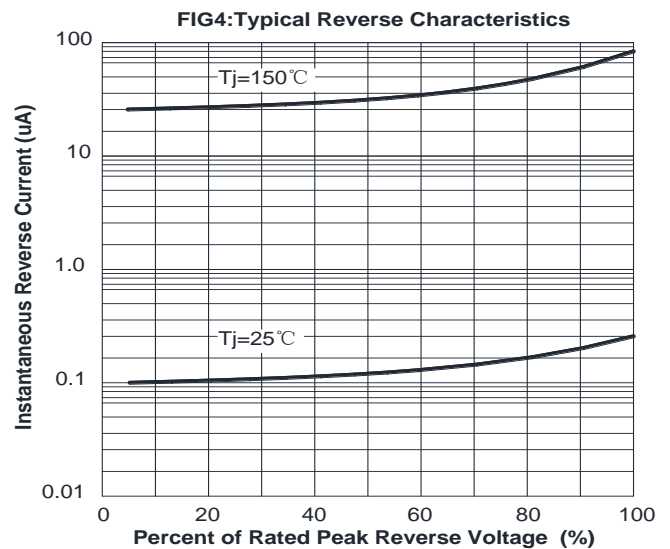
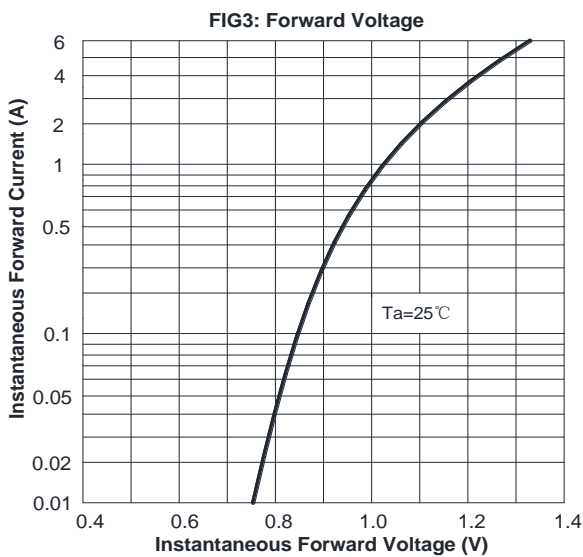
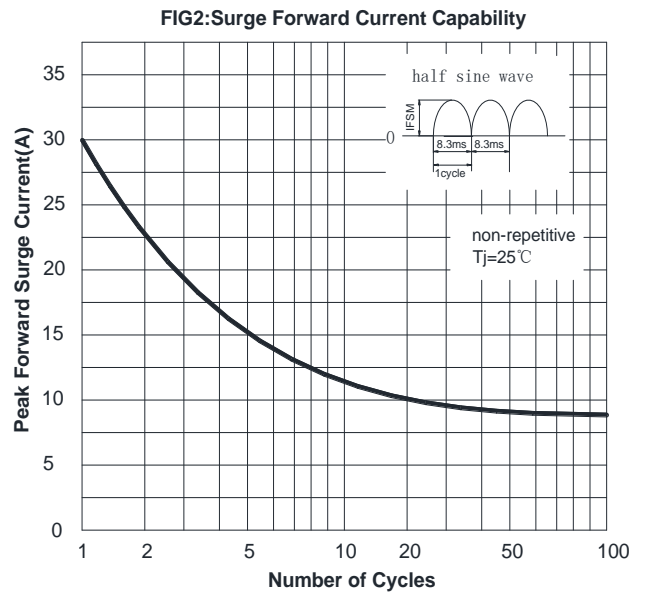
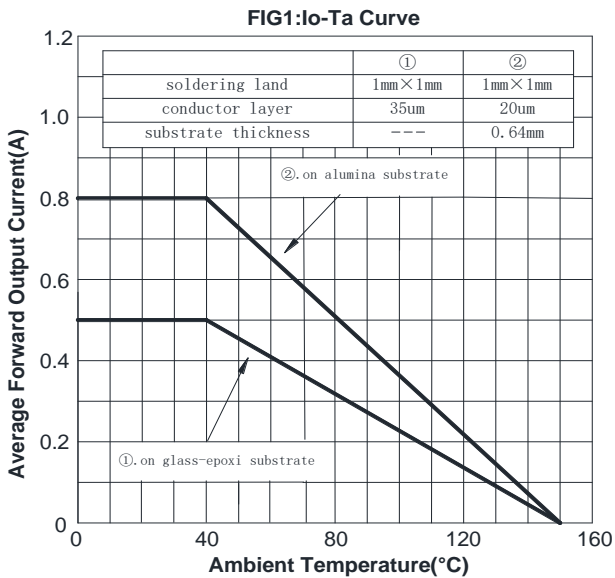
■ **Thermal Characteristics** ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S
Thermal Resistance	Between junction and ambient, On alumina substrate	R θ J-A	$^\circ\text{C}/\text{W}$	76.0					
	Between junction and ambient, On glass-epoxi substrate	R θ J-A		134.0					
	Between junction and lead	R θ J-L		20.0					

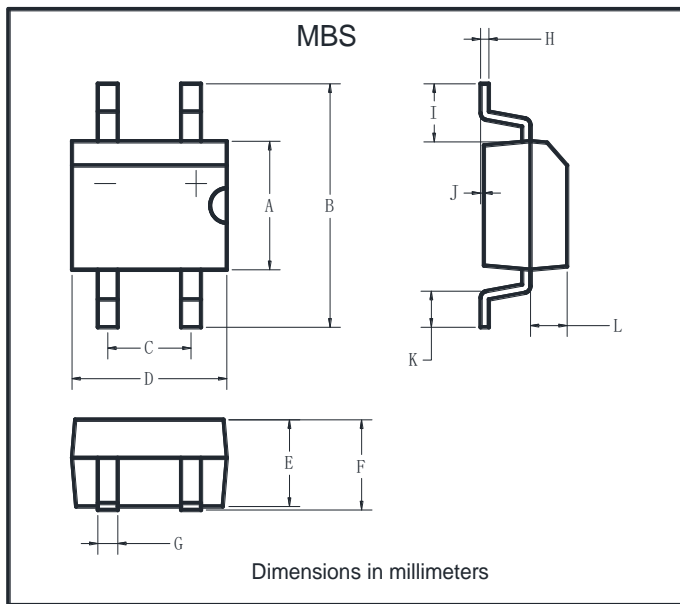
■ **Ordering Information (Example)**

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MB1S-MB10S	F1	Approximate 0.12	2500	5000	40000	13' reel

■ **Characteristics(Typical)**

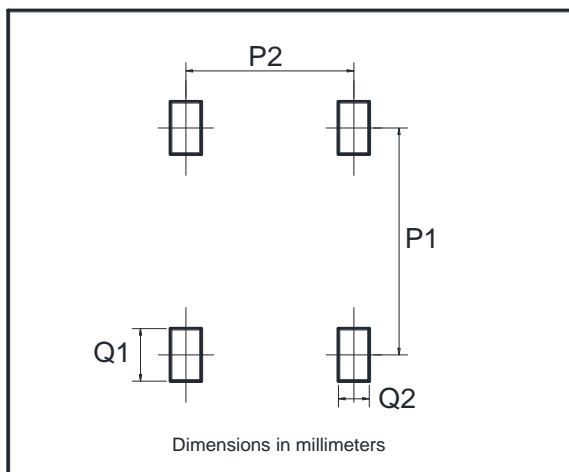


■ Outline Dimensions



MBS		
Dim	Min	Max
A	3.60	4.00
B	7.00 Max	
C	2.20	2.60
D	4.50	4.90
E	2.30	2.70
F	3.00 Max	
G	0.56	0.84
H	0.15	0.35
I	1.10	2.12
J	0.20 Max	
K	0.70	1.10
L	0.95	1.53

■ Suggested pad layout



Dim	Min
P1	6.00
P2	2.40
Q1	1.84
Q2	1.20

Disclaimers

These materials are intended as a reference to assist our customers in the selection of the Steifpower Technology products best suited to the customer's applications, they do not convey any license under any intellectual property rights, or any other rights, belonging to Steifpower Technology or third party. Steifpower Technology assumes no responsibility for any damage, or infringement of any third-party's rights, originating in the use of any product data, diagrams, charts, programs, algorithms, or circuit application examples contained in these materials. All information contained in these materials, including product data, diagrams, charts, programs and algorithms represents information on products at the time of publication of these materials, and is subject to change by Steifpower Technology without notice due to product improvements or other reasons.

It is therefore recommended that customers contact Steifpower Technology or an authorized Steifpower Technology distributor for the latest product information before purchasing a product listed herein.

The information described here may contain technical inaccuracies or typographical errors.

Steifpower Technology assumes no responsibility for any damage, liability, or other loss arising from these inaccuracies or errors.

Please also pay attention to information published by Steifpower Technology by various means including our website home page (<http://www.steifpower.com>).

When using any or all of the information contained in these materials, including product data diagrams, charts, programs, and algorithms, please be sure to evaluate all information as a total system before making a final decision on the applicability of the information and products.

Steifpower Technology assumes no responsibility for any damage, liability or other loss resulting from the information contained herein.

The prior written approval of Steifpower Technology is necessary to reprint or reproduce in whole or in part these materials.

Please contact Steifpower Technology or an authorized distributor for further details on these materials or the products contained herein.