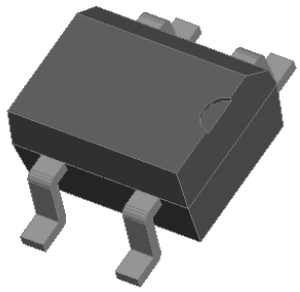
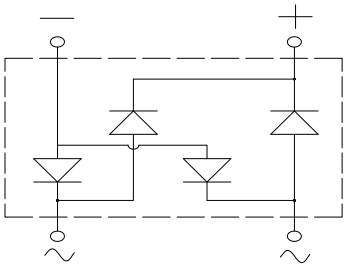
Bridge Rectifiers





Features

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

Typical Applications

General purpose use in high frequency 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℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	HMB6S	HMB8S	HMB10S
Device marking code			HMB6S	HMB8S	HMB10S
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	600	800	1000
Average rectified output current @60Hz sine wave, R-load, Tc=115℃	I_O	A	1.0		
Forward Surge Current (Non-repetitive) @8.3ms Half-sine wave,1 cycle, Tj=25℃	I_{FSM}	A	30		
Current squared time @1ms≤t≤8.3ms Tj=25℃,rating of per diode	I^2t	A^2S	3.7		
Storage temperature	T_{stg}	℃	-55 ~ +150		
Junction temperature	T_j	℃	-55 ~ +150		

■Electrical Characteristics（T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	HMB6S	HMB8S	HMB10S
Maximum reverse recovery time	t_{rr}	ns	I_F=0.5A,I_R=1.0A, I_{rr}=0.25A	75		
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=0.5A	1.7		
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	T_j =25℃	5		
			T_j =125℃	100		
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	12		

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	HMB6S	HMB8S	HMB10S
Typical Thermal Resistance	Between junction and ambient	RθJ-A	℃/W	65.0		
	Between junction and lead	RθJ-L		28.0		
	Between junction and case	RθJ-C		20.0		

Note: Device mounted on P.C.B with 35mm*25mm*1.7mm.

■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
HMB6S ~ HMB10S	F1	Approximate 0.12	2500	/	40000	13’ reel
HMB6S ~ HMB10S	F2	Approximate 0.12	3000	/	48000	13’ reel

■ Characteristics(Typical)

FIG1:Io-Tc Curve

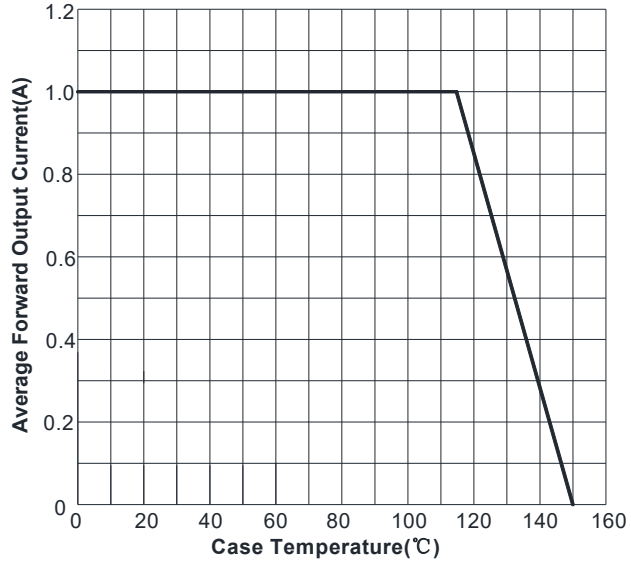


FIG2:Surge Forward Current Capability

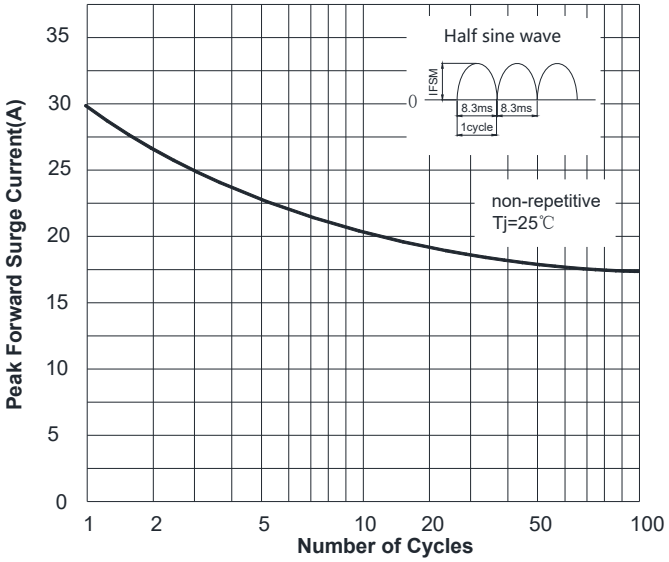


FIG3: Typical Forward Voltage

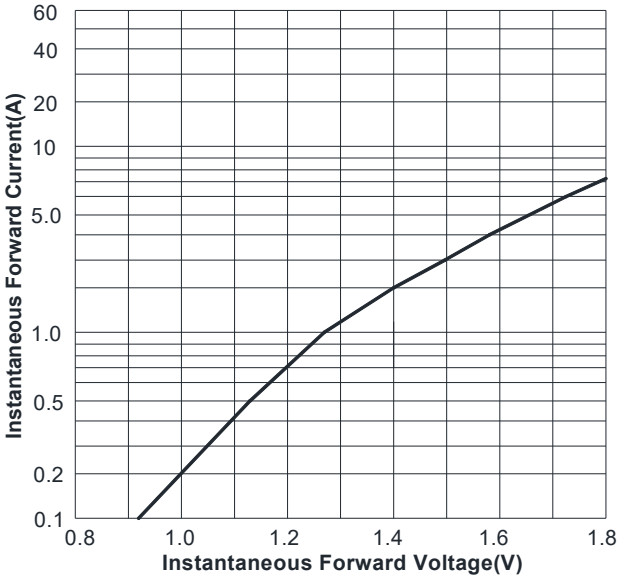
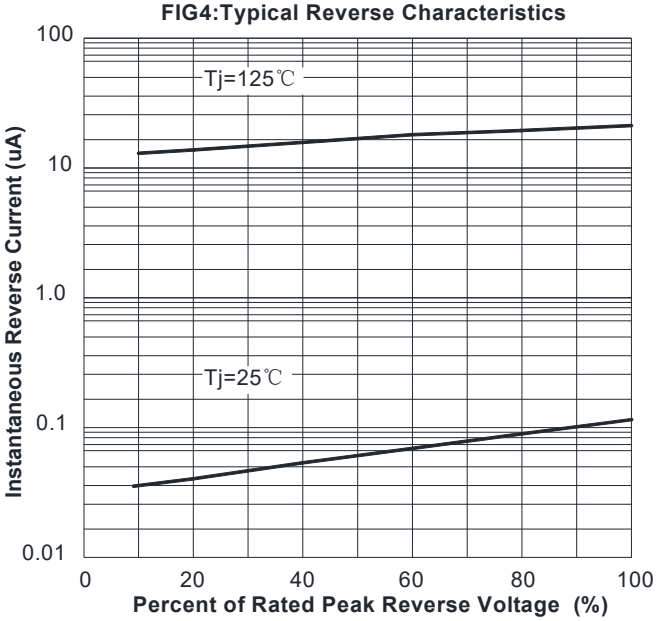
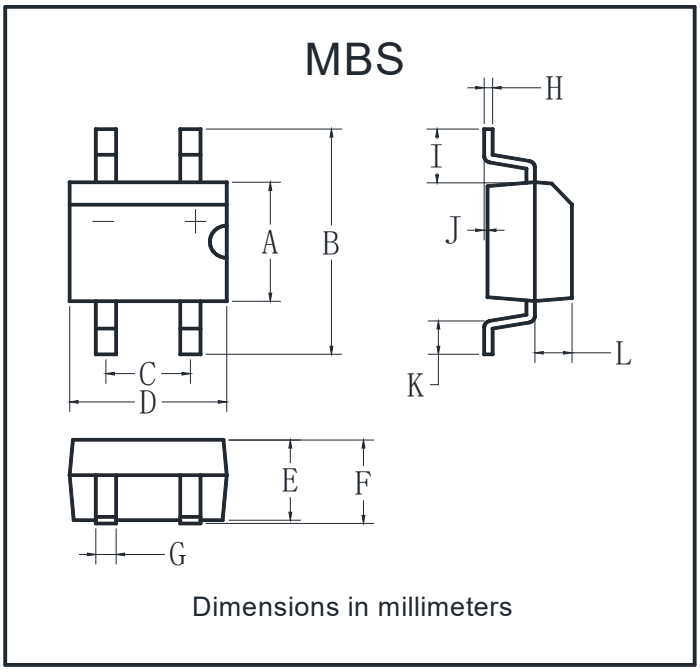


FIG4:Typical Reverse Characteristics

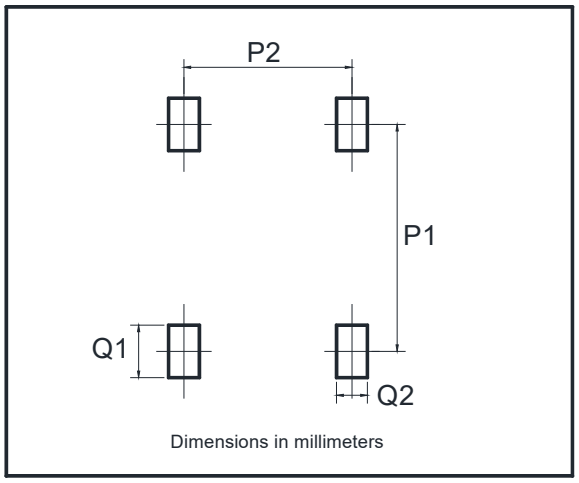


■ Outline Dimensions



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

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