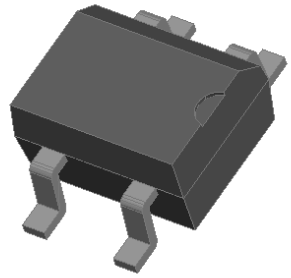
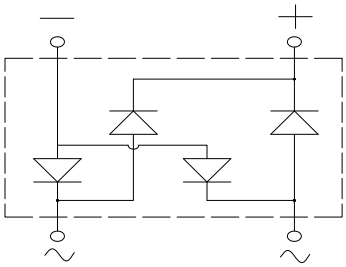
Bridge Rectifiers





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℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	MB1SA	MB2SA	MB4SA	MB6SA	MB8SA	MB10SA
Device marking code				MB1SA	MB2SA	MB4SA	MB6SA	MB8SA	MB10SA
Repetitive peak reverse voltage		V_{RRM}	V	100	200	400	600	800	1000
RMS Bridge input Voltage		V_{RMS}	V	70	140	280	420	560	700
DC Reverse Voltage		V_{DC}	V	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, Ta=40℃	On alumina substrate	I_O	A	1.0					
	On glass-epoxi substrate			0.8					
Surge(non-repetitive)forward current @60Hz half sine wave, 1 cycle, T_j=25℃		I_{FSM}	A	35					
Current squared time @1ms≤t≤8.3ms Tj=25℃,rating of per diode		I^2t	A^2S	5.1					
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	MB1SA	MB2SA	MB4SA	MB6SA	MB8SA	MB10SA
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=0.5A	1.00					
Maximum DC reverse current at rated DC blocking voltage per diode	I_{RRM}	μA	V_{RM}=V_{RRM}	5					

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

PARAMETER		SYMBOL	UNIT	MB1SA	MB2SA	MB4SA	MB6SA	MB8SA	MB10SA
Thermal Resistance	Between junction and ambient, On alumina substrate	RθJ-A	℃/W	76.0					
	Between junction and ambient, On glass-epoxi substrate	RθJ-A		134.0					
	Between junction and lead	RθJ-L		20.0					

■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MB1SA-MB10SA	F1	Approximate 0.12	2500	5000	40000	13’ reel
MB1SA-MB10SA	F2	Approximate 0.12	3000	6000	48000	13’ reel

■ Characteristics(Typical)

FIG1:Io-Ta Curve

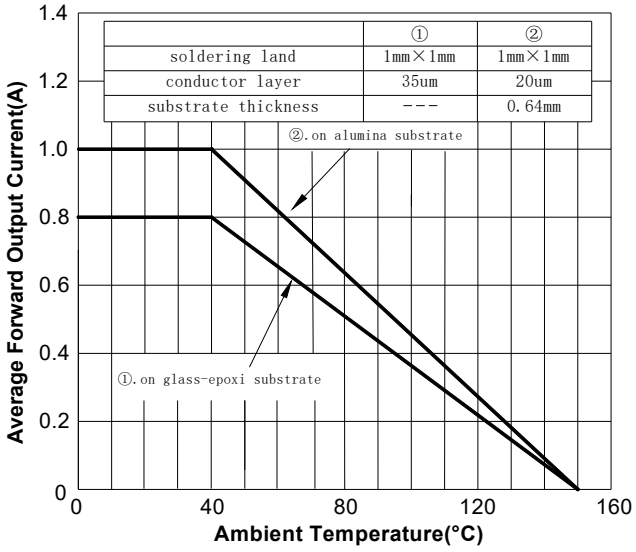


FIG2:Surge Forward Current Capability

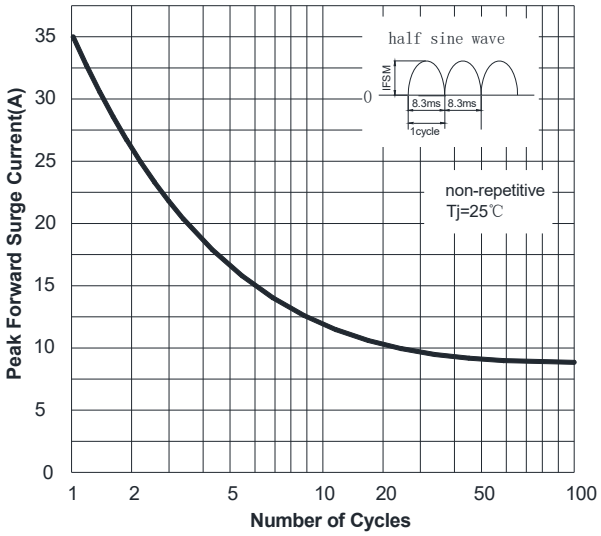


FIG3: Forward Voltage

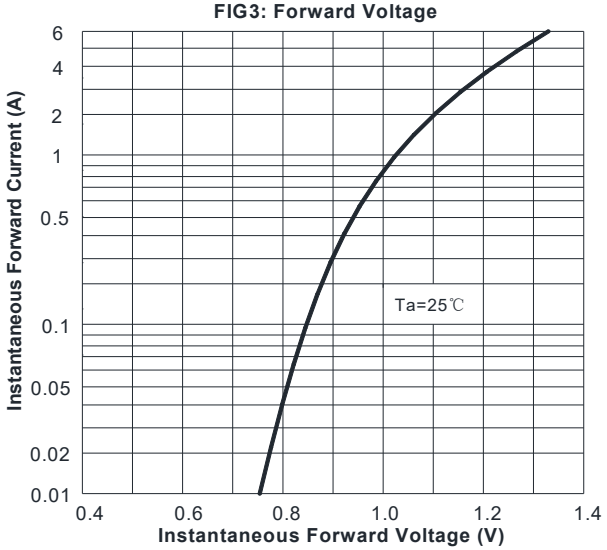
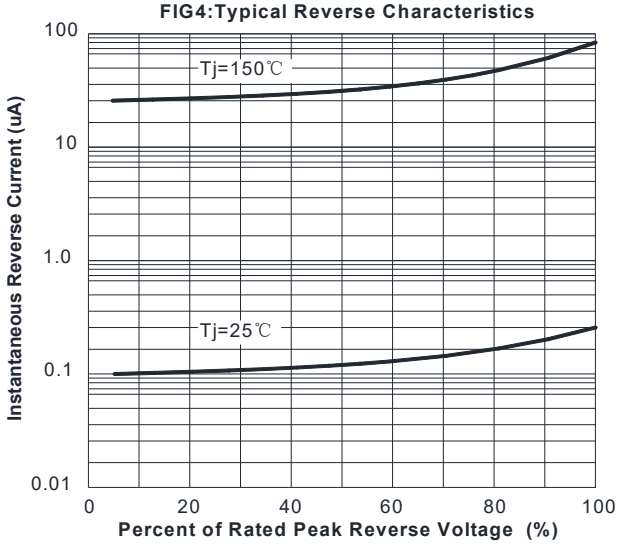
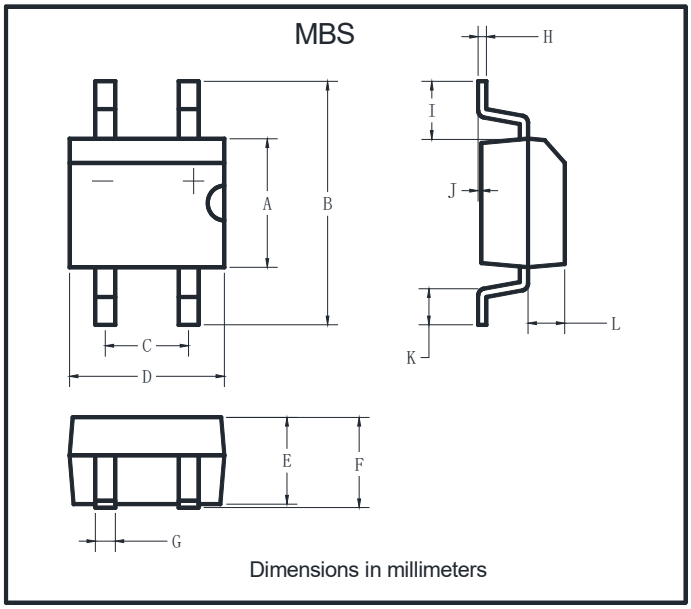


FIG4:Typical Reverse Characteristics

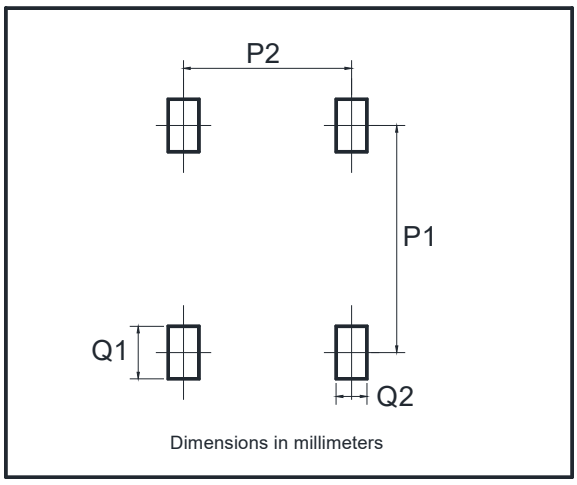


■ Outline Dimensions



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

Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website http:// www.21yangjie.com , or consult your nearest Yangjie's sales office for further assistance.