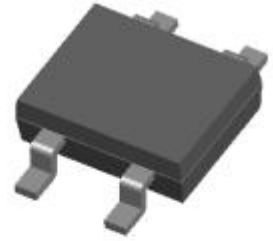


Bridge Rectifiers

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

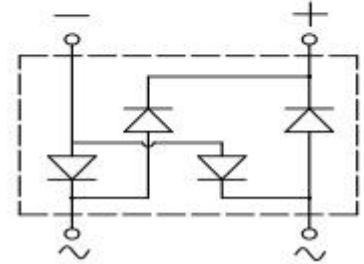


Typical Applications

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:** MBLS
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°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBL1SA	MBL2SA	MBL4SA	MBL6SA	MBL8SA	MBL10SA
Device marking code			MBL1SA	MBL2SA	MBL4SA	MBL6SA	MBL8SA	MBL10SA
Repetitive peak reverse voltage	VRRM	V	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, T _a =40°C	On alumina substrate	I _o	A	1.0				
	On glass-epoxy substrate			0.8				
Surge(non-repetitive)forward current @60Hz half sine wave, 1 cycle, T _j =25°C	IFSM	A	35					
Current squared time @1ms≤t≤8.3ms T _j =25°C, rating of per diode	I ² t	A ² s	5.1					
Storage temperature	T _{stg}	°C	-55 ~+150					
Junction temperature	T _j	°C	-55 ~+150					

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBL1SA	MBL2SA	MBL4SA	MBL6SA	MBL8SA	MBL10SA
Maximum instantaneous forward voltage drop per diode	V _F	V	IFM=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°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	MBL1SA	MBL2SA	MBL4SA	MBL6SA	MBL8SA	MBL10SA
Thermal Resistance	Between junction and ambient, On alumina substrate	R θ J-A	°C/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)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBL1SA-MBL10SA	F1	Approximate 0.083	4000	8000	64000	13' reel

■ Characteristics(Typical)

FIG1: I_o-T_a Curve

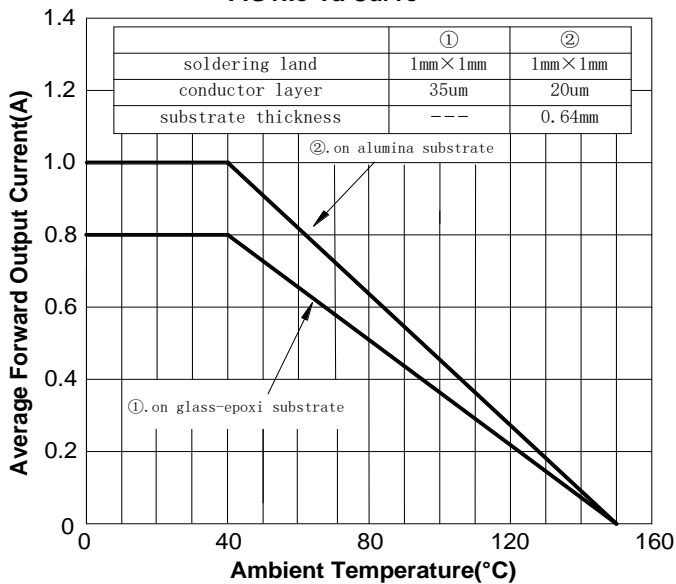


FIG2: Surge Forward Current Capability

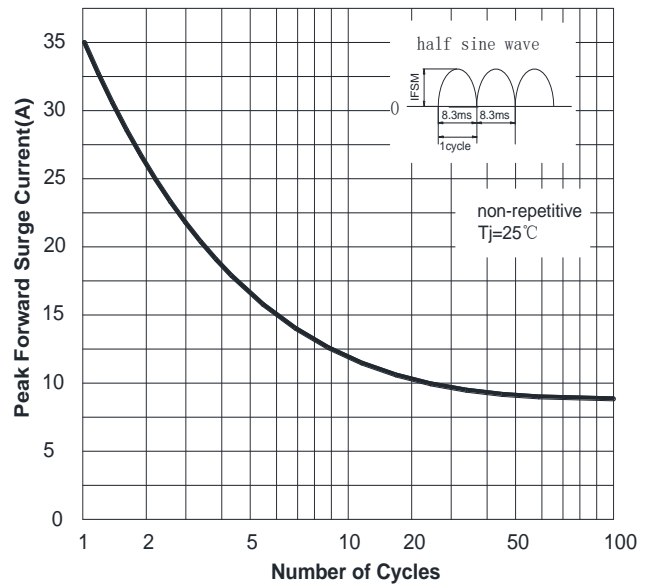


FIG3: Forward Voltage

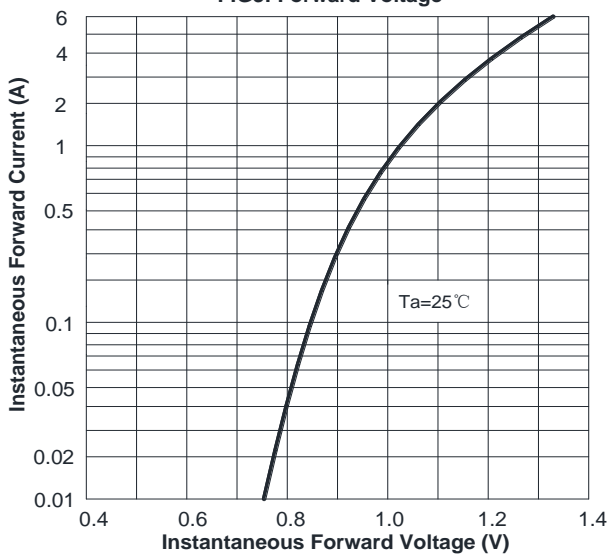
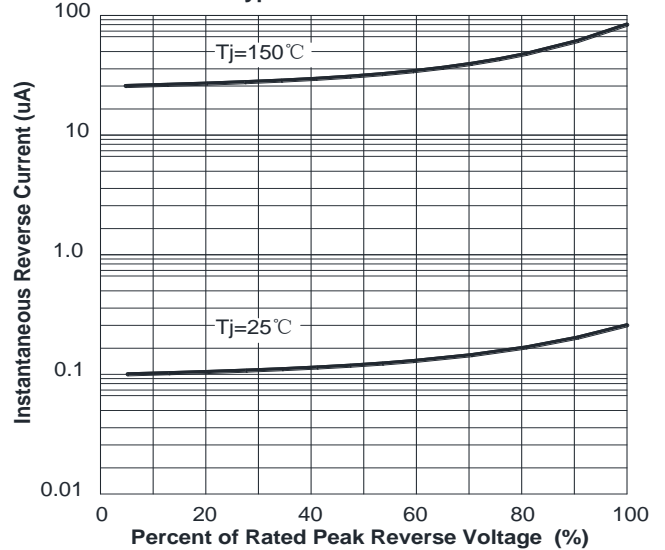
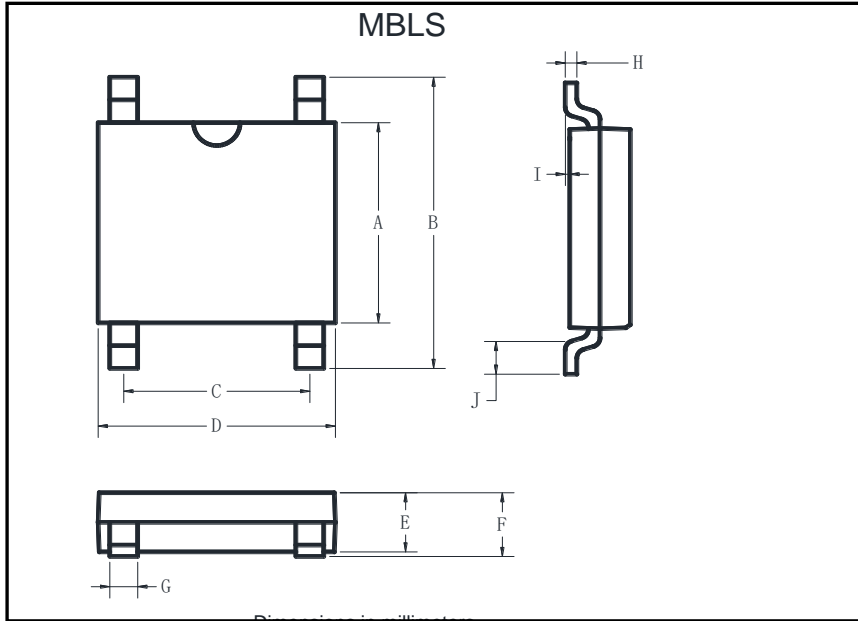


FIG4: Typical Reverse Characteristics

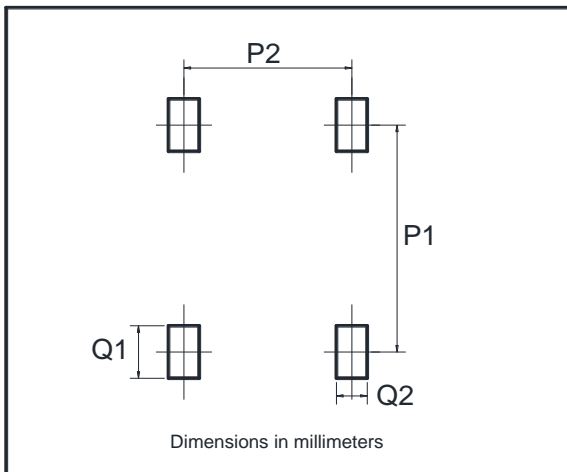


■ Outline Dimensions



MBLS		
Dim	Min	Max
A	3.60	4.00
B	6.40	7.00
C	2.20	2.60
D	4.50	4.90
E	1.30	1.50
F	1.40	1.60
G	0.56	0.84
H	0.15	0.35
I	0.20Max	
J	0.70	1.10

■ Suggested pad layout



Dim	Min
P1	6.00
P2	2.40
Q1	1.84
Q2	1.20

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