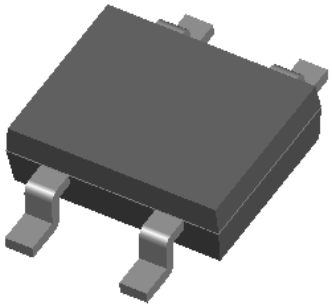
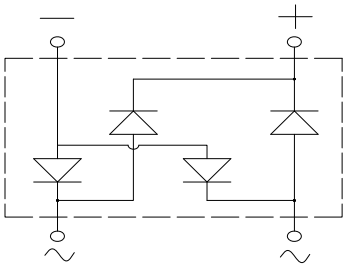
Bridge Rectifiers





Features

- 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 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 (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBL1SA	MBL2SA	MBL4SA	MBL6SA	MBL8SA	MBL10SA
Device marking code			MBL1SA	MBL2SA	MBL4SA	MBL6SA	MBL8SA	MBL10SA
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, Tc=120℃	I_O	A	1.0					
Forward Surge Current (Non-repetitive) @8.3ms Half-sine wave,1 cycle, Tj=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（Ta=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBL1SA	MBL2SA	MBL4SA	MBL6SA	MBL8SA	MBL10SA
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=0.5A	1.0					
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	T_j =25℃	5					
			T_j =125℃	50					
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	MBL1SA	MBL2SA	MBL4SA	MBL6SA	MBL8SA	MBL10SA
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		18.0					

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
MBL1SA ~ MBL10SA	F1	Approximate 0.083	4000	/	64000	13’ reel
MBL1SA ~ MBL10SA	F3	Approximate 0.083	5000	/	80000	13’ reel

■ Characteristics(Typical)

FIG1:Io-Tc Curve

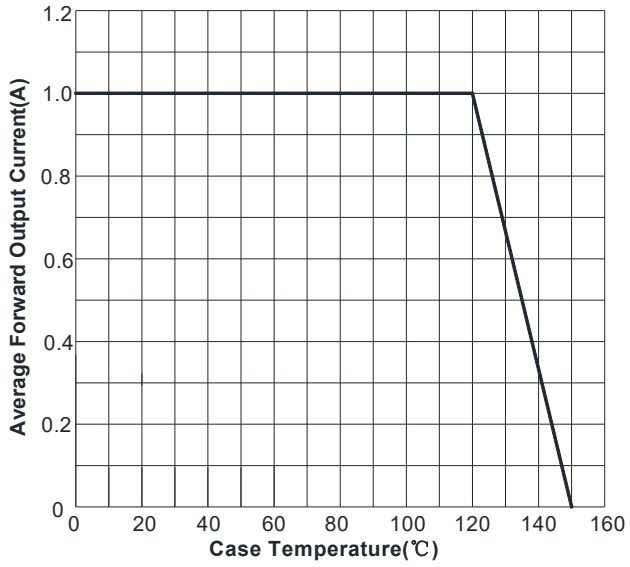


FIG2:Surge Forward Current Capability

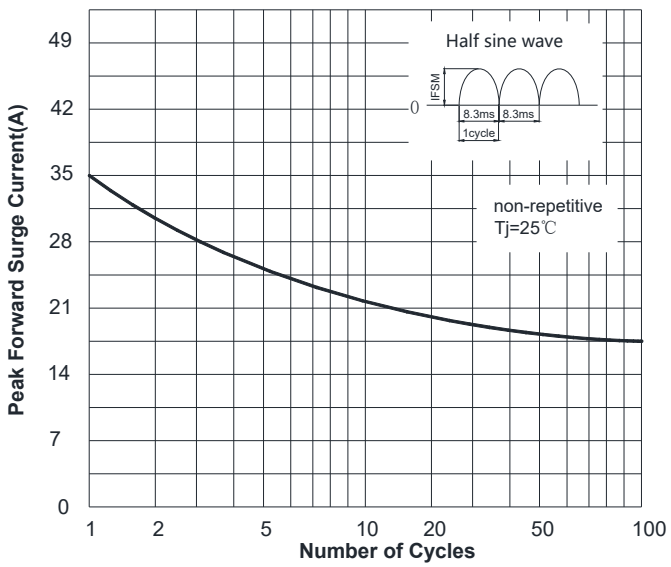


FIG3: Typical Forward Voltage

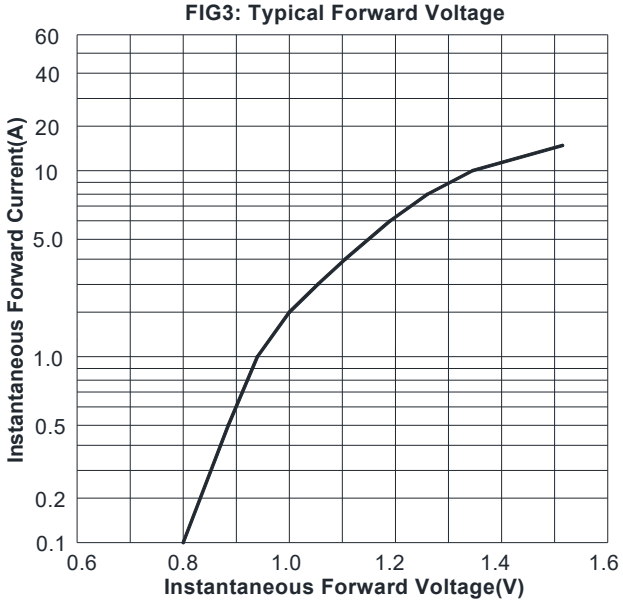
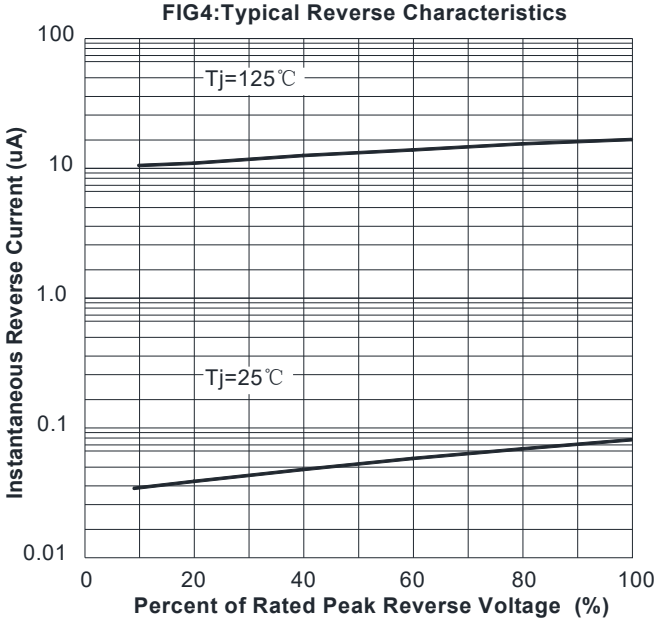
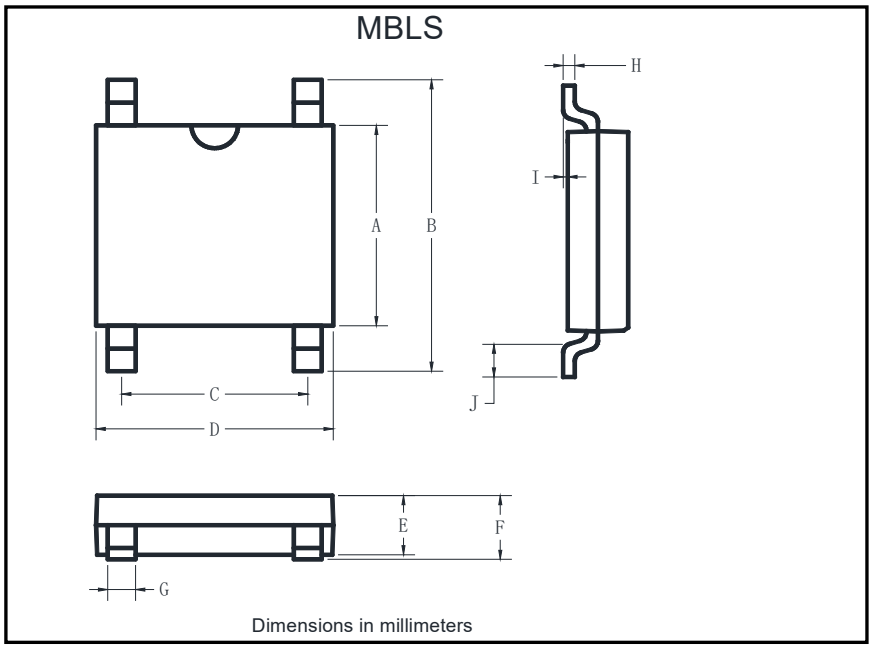


FIG4:Typical Reverse Characteristics

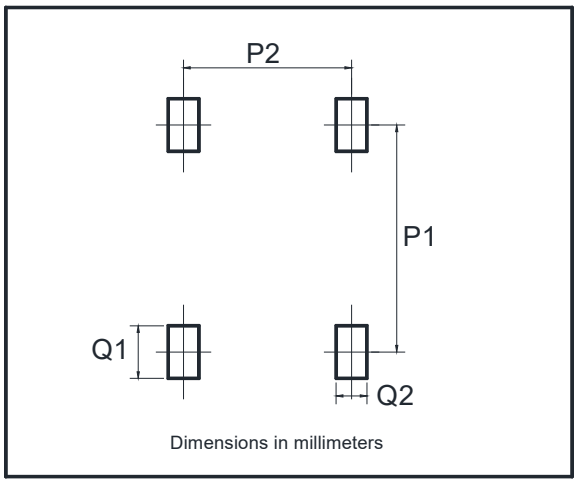


■ Outline Dimensions



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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