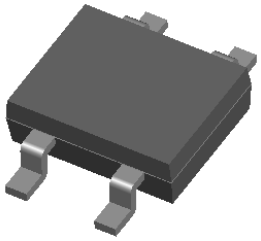
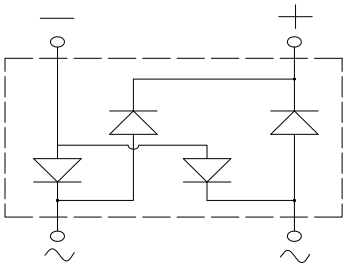
Bridge Rectifiers





Features

- 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 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**: 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	MBLSK 12S	MBLSK 14S	MBLSK 16S	MBLSK 18S	MBLSK 110S	MBLSK 115S	MBLSK 120S
Device marking code			MBLSK 12S	MBLSK 14S	MBLSK 16S	MBLSK 18S	MBLSK 110S	MBLSK 115S	MBLSK 120S
Repetitive peak reverse voltage	V_{RRM}	V	20	40	60	80	100	150	200
Average rectified output current @60Hz Half-sine wave, Resistance load, Ta (FIG.1)	I_O	A	1.0						
Surge(non-repetitive)forward current @ 60Hz 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 ~+125		-55 ~+150				

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBLSK 12S	MBLSK 14S	MBLSK 16S	MBLSK 18S	MBLSK 110S	MBLSK 115S	MBLSK 120S
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=0.5A	0.50		0.70	0.85		0.90	
Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM	I_{RRM}	uA	Ta=25℃	500			100			
			Ta=100℃	10000			5000			

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

PARAMETER		SYMBOL	UNIT	MBLSK 12S	MBLSK 14S	MBLSK 16S	MBLSK 18S	MBLSK 110S	MBLSK 115S	MBLSK 120S
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
MBLSK12S-MBLSK120S	F1	Approximate 0.083	4000	8000	64000	13’ reel
MBLSK12S-MBLSK120S	F3	Approximate 0.083	5000	10000	80000	13’ reel

■ Characteristics(Typical)

FIG1:Io-Ta Curve

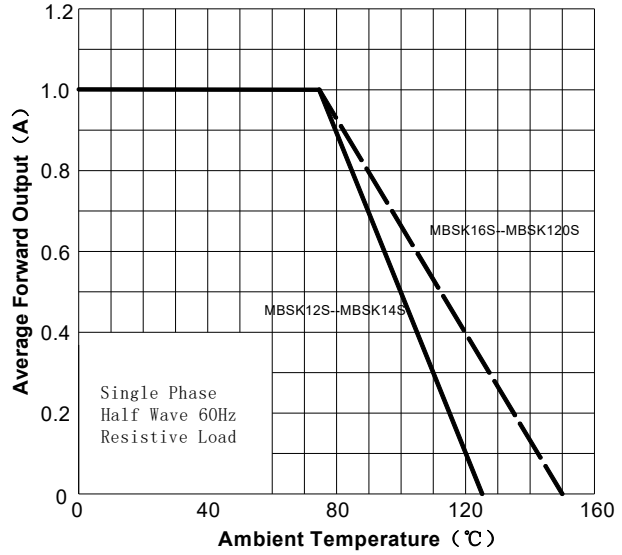


FIG2:Surge Forward Current Capability

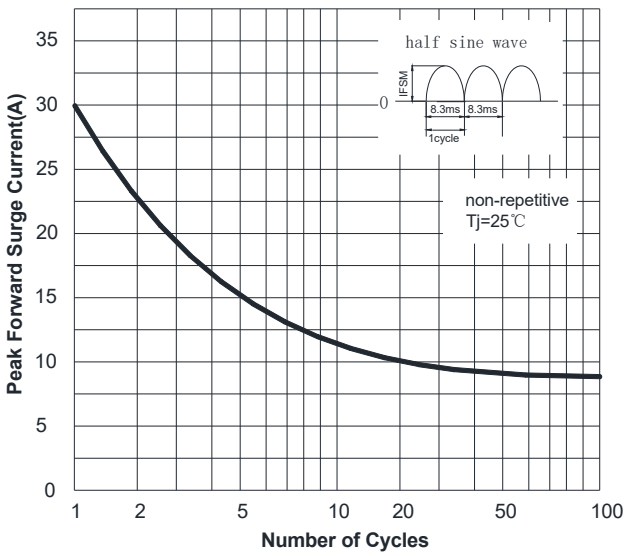


FIG3: Forward Voltage

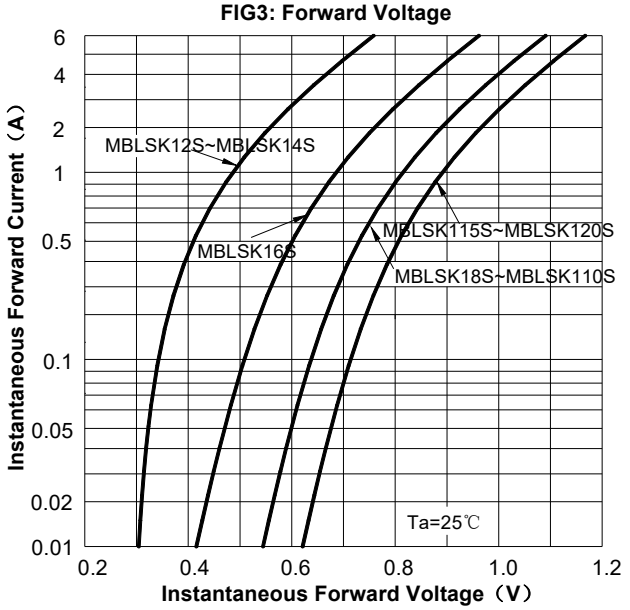
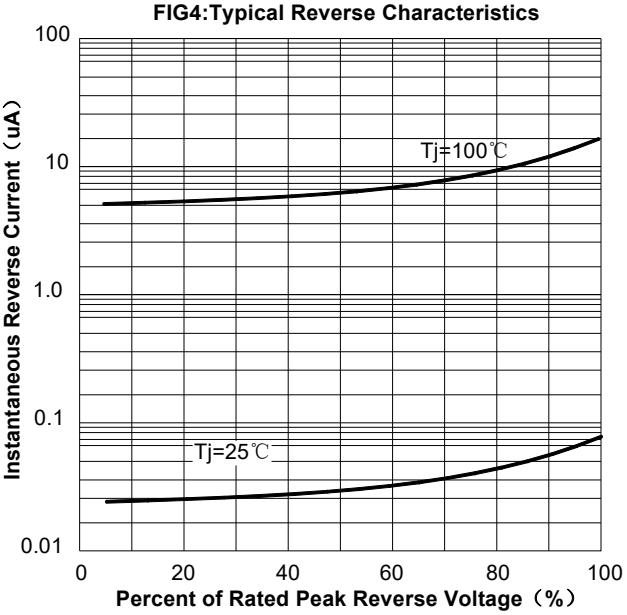
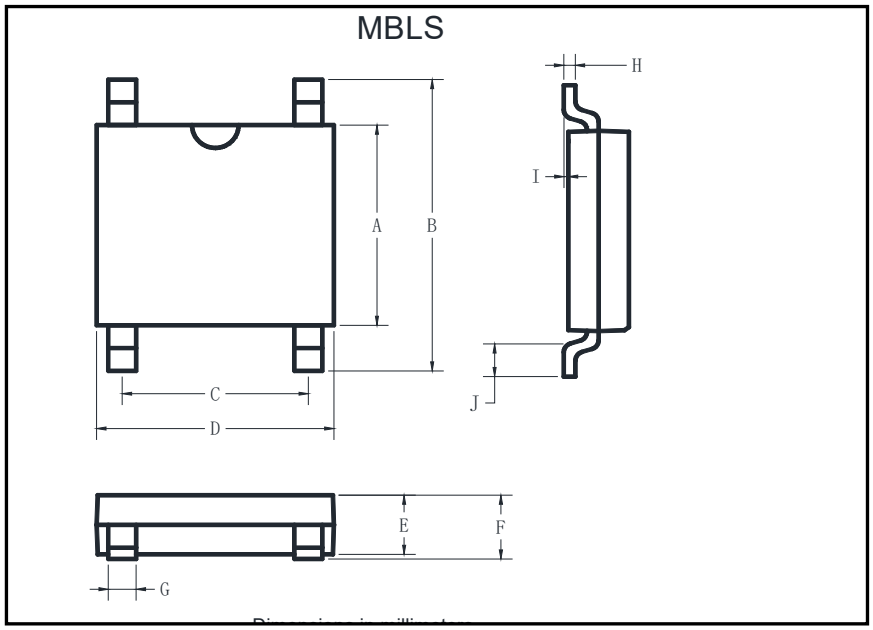


FIG4:Typical Reverse Characteristics

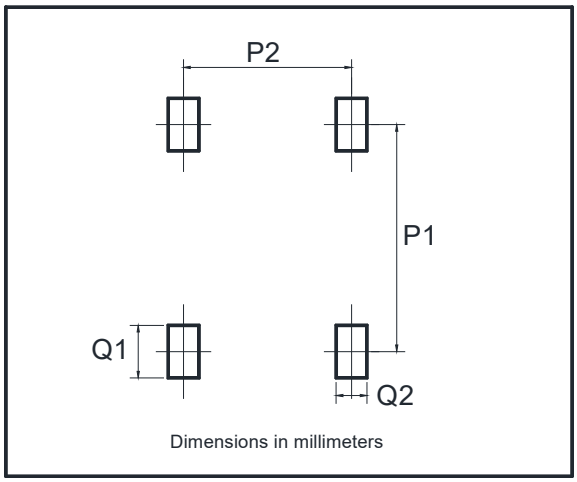


■ Outline Dimensions



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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