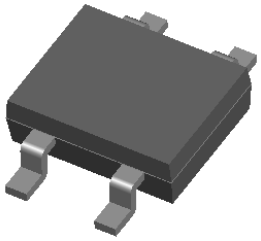
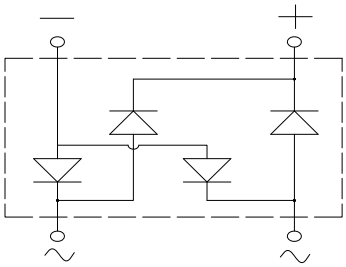
Bridge Rectifiers





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	MBLSK22S	MBLSK24S	MBLSK26S	MBLSK28S	MBLSK210S	MBLSK215S	MBLSK220S
Device marking code			MBLSK22S	MBLSK24S	MBLSK26S	MBLSK28S	MBLSK210S	MBLSK215S	MBLSK220S
Repetitive peak reverse voltage	V_{RRM}	V	20	40	60	80	100	150	200
Average rectified output current @60Hz Half-sine wave, Resistance load, TL (FIG.1)	I_O	A	2.0						
Surge(non-repetitive)forward current @ 60Hz half-sine wave,1 cycle, Tj=25℃	I_{FSM}	A	50						
Current squared time @1ms≤t≤8.3ms Tj=25℃,rating of per diode	I^2t	A^2s	10.3						
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	MBLSK22S	MBLSK24S	MBLSK26S	MBLSK28S	MBLSK210S	MBLSK215S	MBLSK220S
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=1.0A	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	MBLSK22S	MBLSK24S	MBLSK26S	MBLSK28S	MBLSK210S	MBLSK215S	MBLSK220S
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
MBLSK22S-MBLSK220S	F1	Approximate 0.083	4000	8000	64000	13’ reel
MBLSK22S-MBLSK220S	F3	Approximate 0.083	5000	10000	80000	13’ reel

■ Characteristics(Typical)

FIG1:Io-TL Curve

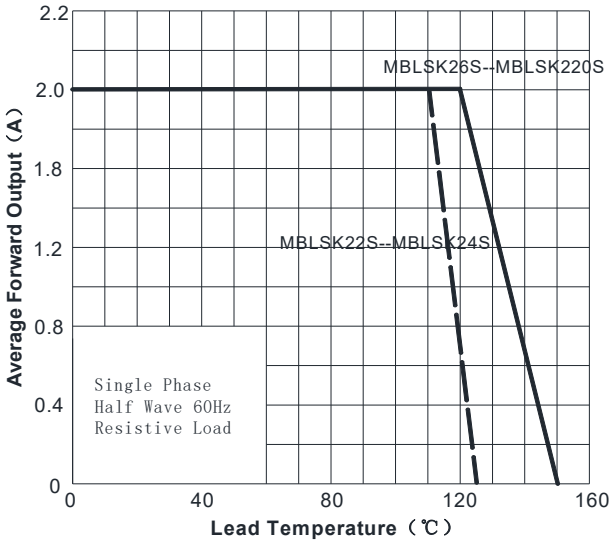


FIG2:Surge Forward Current Capability

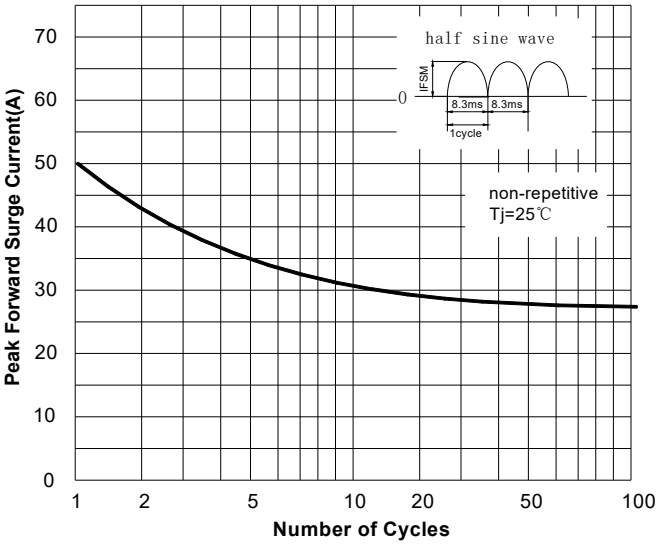


FIG3: Forward Voltage

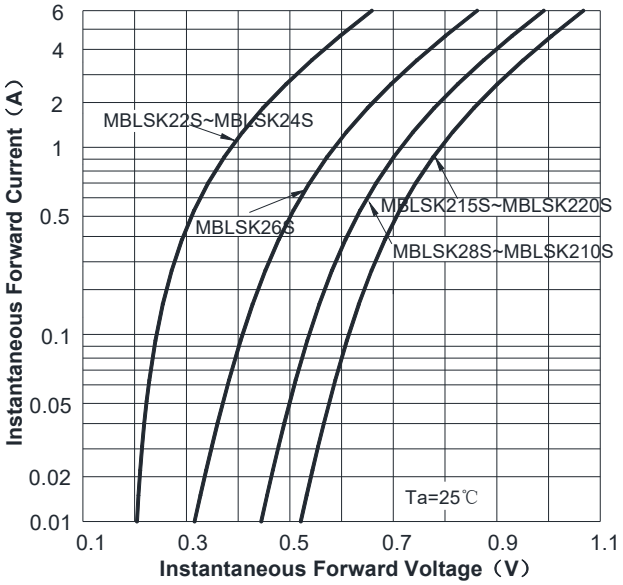
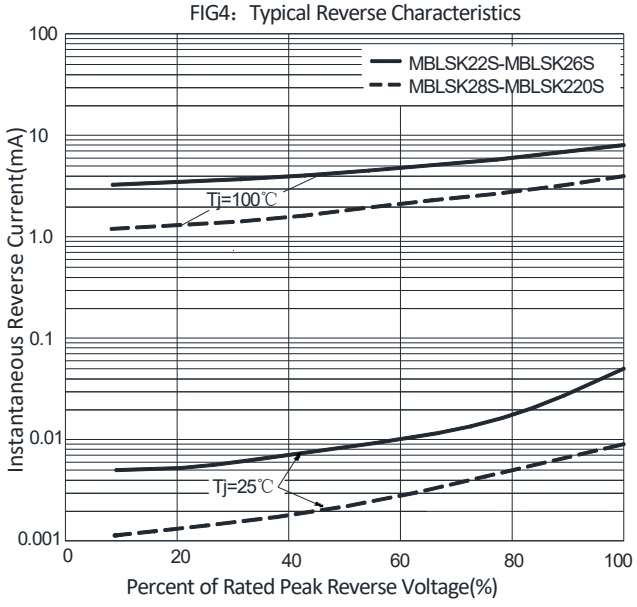
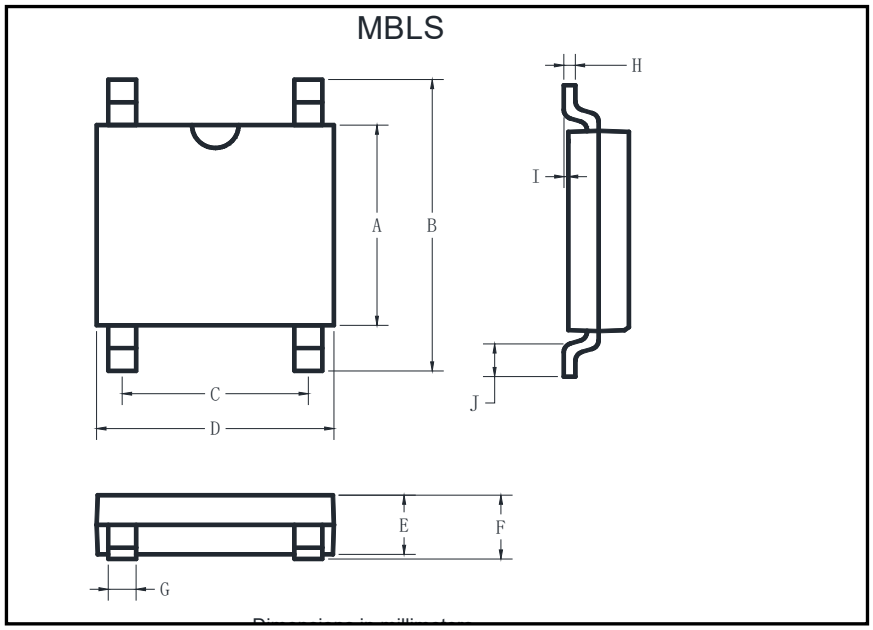


FIG4：Typical Reverse Characteristics

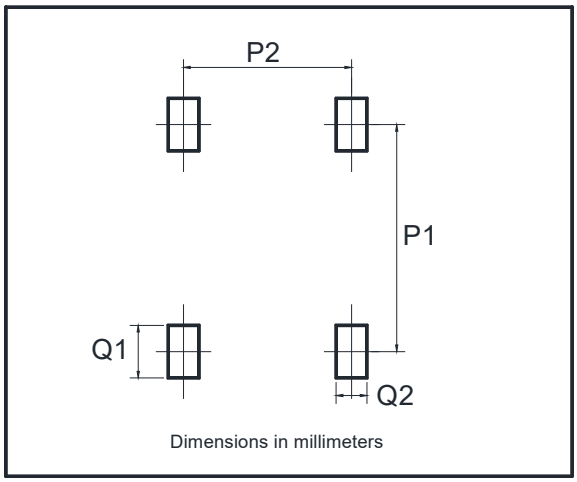


■ Outline Dimensions



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

Notice

All products, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise. Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in STARSEA's terms and conditions of sale for such products, STARSEA assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of STARSEA products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.