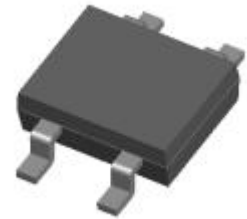


## Bridge Rectifiers

### 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

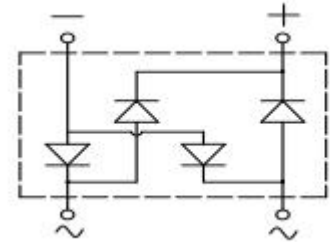


### Typical Applications

General purpose use in 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:** MBL5  
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<sub>a</sub>=25°C 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 <sub>RRM</sub>	V	20	40	60	80	100	150	200
Average rectified output current @ 60Hz Half-sine wave, Resistance load, TL (FIG.1)	I <sub>o</sub>	A	2.0						
Surge(non-repetitive)forward current @ 60Hz half-sine wave,1 cycle, T <sub>j</sub> =25°C	I <sub>FSM</sub>	A	50						
Current squared time @ 1ms≤t≤8.3ms T <sub>j</sub> =25°C, rating of per diode	I <sup>2</sup> t	A <sup>2</sup> s	10.3						
Storage temperature	T <sub>stg</sub>	°C	-55 ~+150						
Junction temperature	T <sub>j</sub>	°C	-55 ~+125			-55 ~+150			

### ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBLSK22S	MBLSK24S	MBLSK26S	MBLSK28S	MBLSK210S	MBLSK215S	MBLSK220S
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =1.0A	0.50		0.70	0.85		0.90	
Maximum DC reverse current at rated DC blocking voltage per diode @ V <sub>RM</sub> =V <sub>RRM</sub>	I <sub>RRM</sub>	uA	T <sub>a</sub> =25°C	500			100			
			T <sub>a</sub> =100°C	10000			5000			

## ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	MBLSK22S	MBLSK24S	MBLSK26S	MBLSK28S	MBLSK210S	MBLSK215S	MBLSK220S
Thermal Resistance	Between junction and ambient, On alumina substrate	R <sub>θJ-A</sub>	°C/W	76.0						
	Between junction and ambient, On glass-epoxi substrate	R <sub>θJ-A</sub>		134.0						
	Between junction and lead	R <sub>θJ-L</sub>		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
MBLSK22S-MBLSK220S	F1	Approximate 0.083	4000	8000	64000	13' reel

## ■ Characteristics(Typical)

FIG1:Io-TL Curve

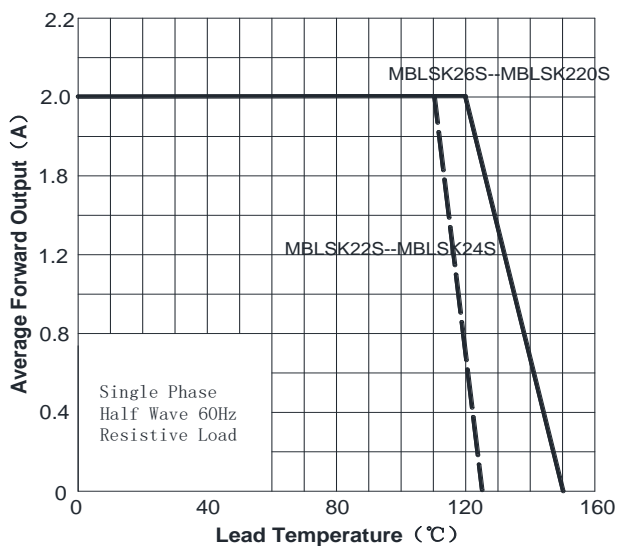


FIG2: Surge Forward Current Capability

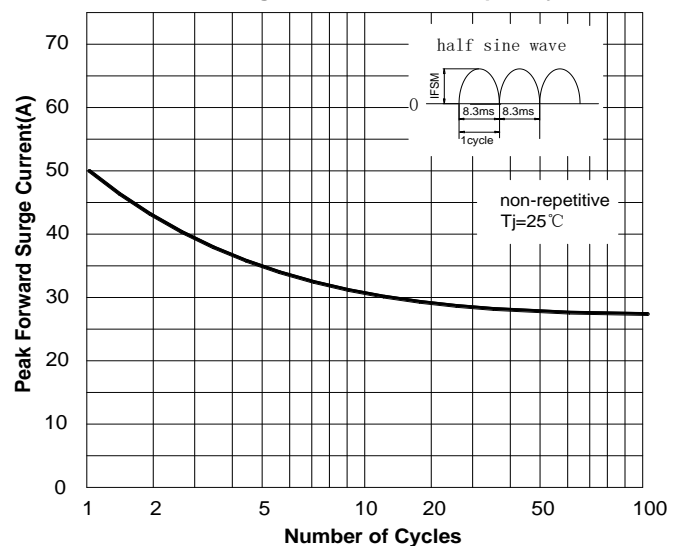


FIG3: Forward Voltage

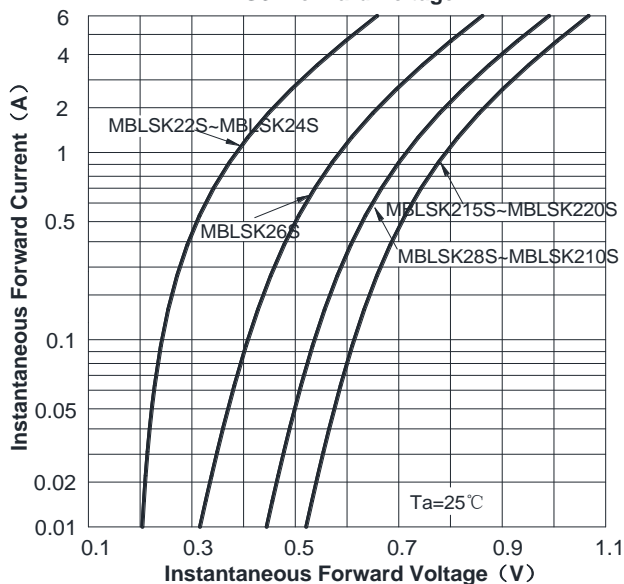
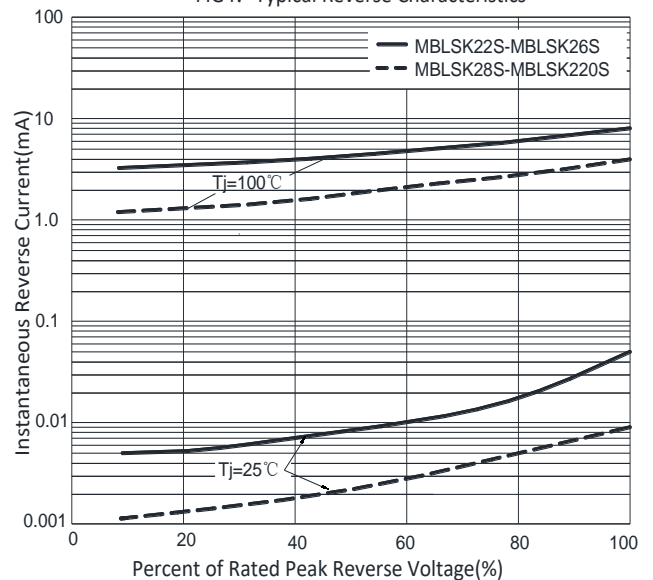
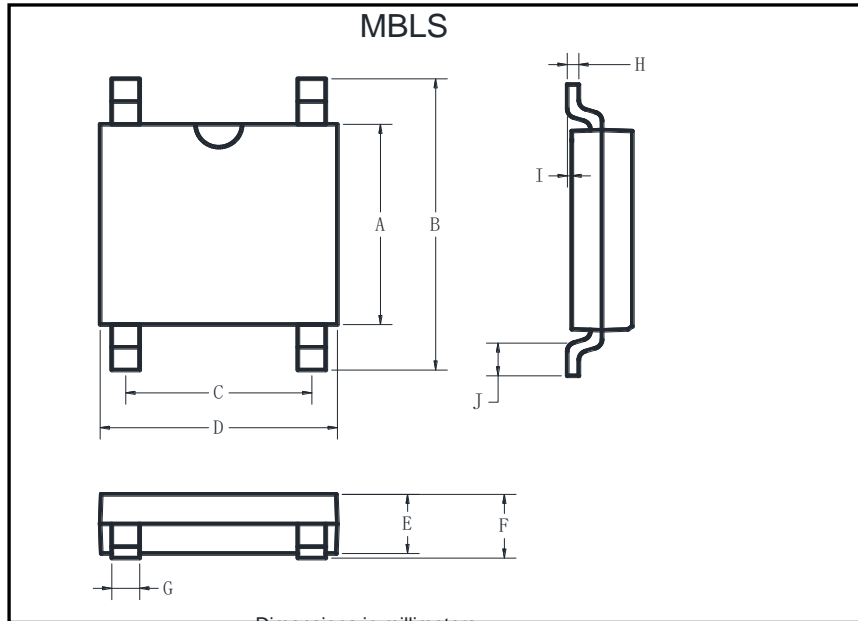


FIG4: Typical Reverse Characteristics

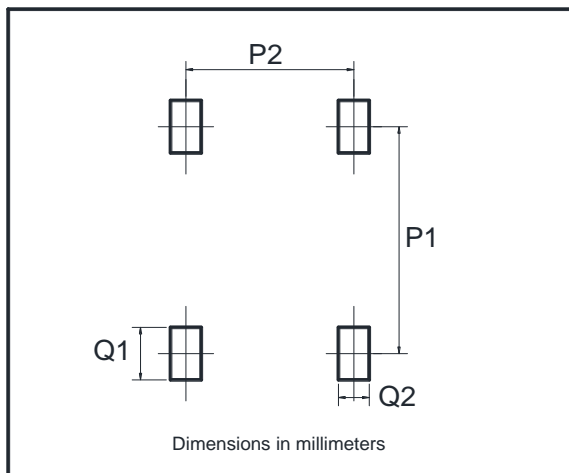


## ■ Outline Dimensions



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

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