

## Bridge Rectifiers

### Features

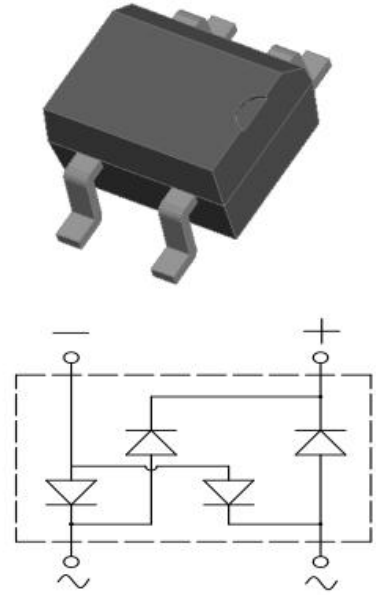
- UL recognition, file #E313149
- Ideal for automated placement
- High surge current capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

### 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:** MBS  
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 ( $T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBSK22S	MBSK24S	MBSK26S	MBSK28S	MBSK210S	MBSK215S	MBSK220S
Device marking code			MBSK22S	MBSK24S	MBSK26S	MBSK28S	MBSK210S	MBSK215S	MBSK220S
Repetitive peak reverse voltage	VRRM	V	20	40	60	80	100	150	200
Average rectified output current @ 60Hz Half-sine wave, Resistance load, $T_a$ (FIG.1)	$I_O$	A	2.0						
Surge(non-repetitive)forward current @ 60Hz half-sine wave, 1 cycle, $T_j=25^{\circ}\text{C}$	IFSM	A	50						
Current squared time @ $1\text{ms} \leq t \leq 8.3\text{ms}$ $T_j=25^{\circ}\text{C}$ , rating of per diode	$I^2t$	$\text{A}^2\text{s}$	10.3						
Storage temperature	$T_{\text{stg}}$	$^{\circ}\text{C}$	-55 ~+150						
Junction temperature	$T_j$	$^{\circ}\text{C}$	-55 ~+125			-55 ~+150			

### ■ Electrical Characteristics ( $T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBSK22S	MBSK24S	MBSK26S	MBSK28S	MBSK210S	MBSK215S	MBSK220S
Maximum instantaneous forward voltage drop per diode	$V_F$	V	IFM=1.0A	0.50		0.70	0.85		0.90	
Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM	IRRM	$\mu\text{A}$	$T_a=25^{\circ}\text{C}$	500			100			
			$T_a=100^{\circ}\text{C}$	10000			5000			

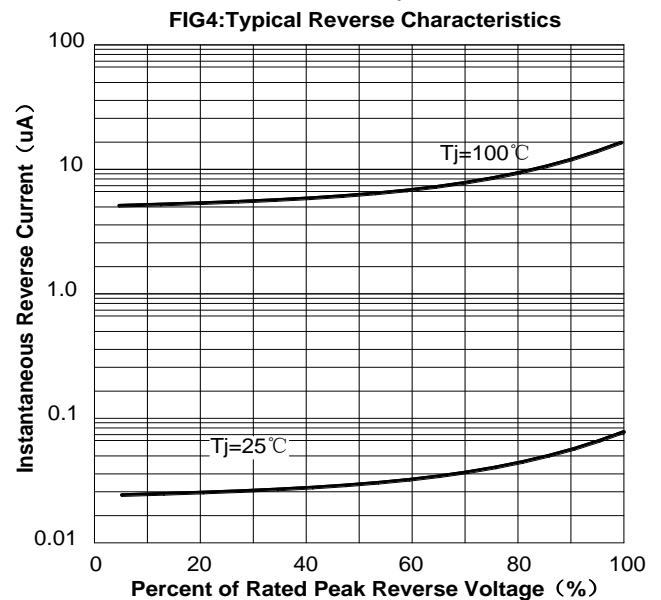
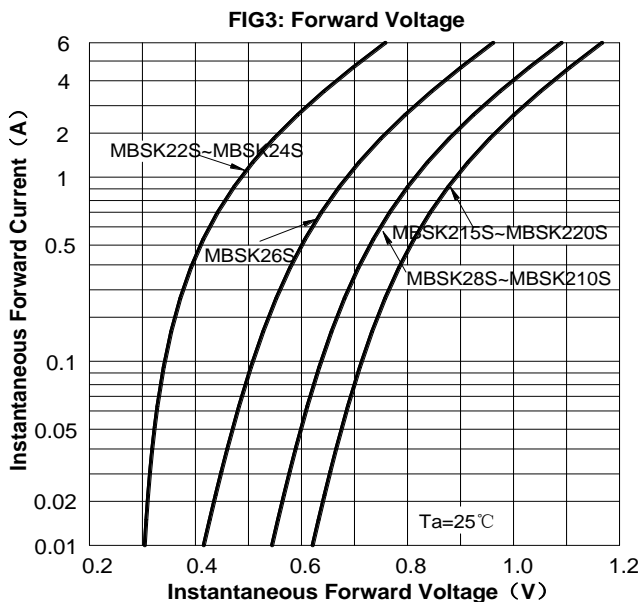
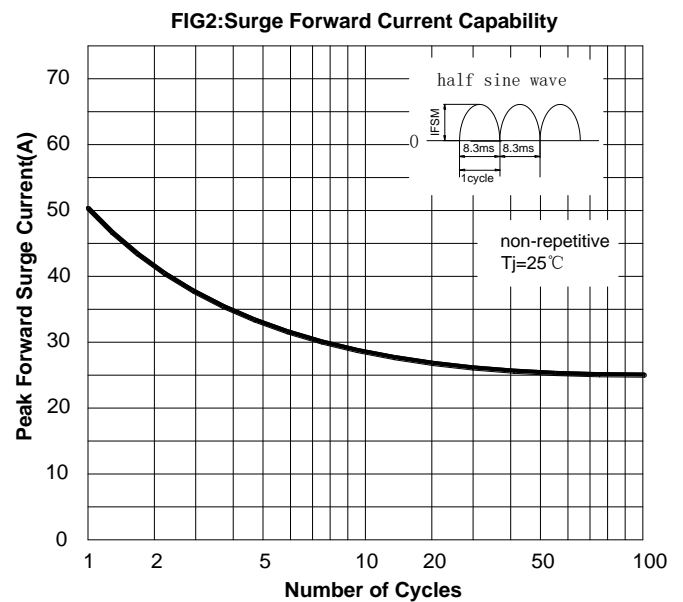
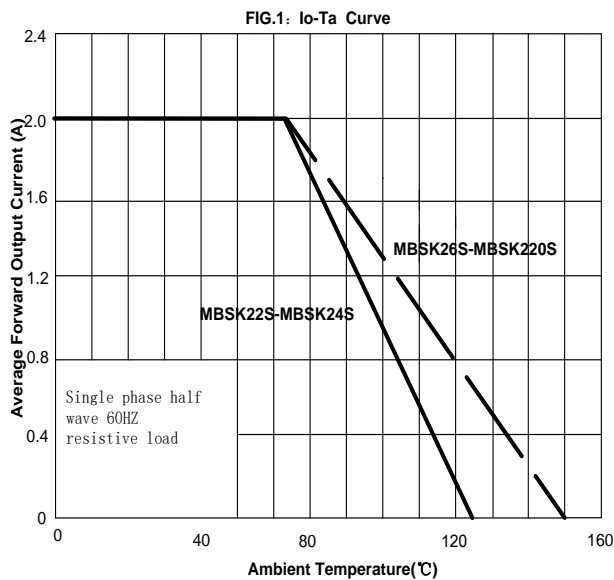
## ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	MBSK22S	MBSK24S	MBSK26S	MBSK28S	MBSK210S	MBSK215S	MBSK220S
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						

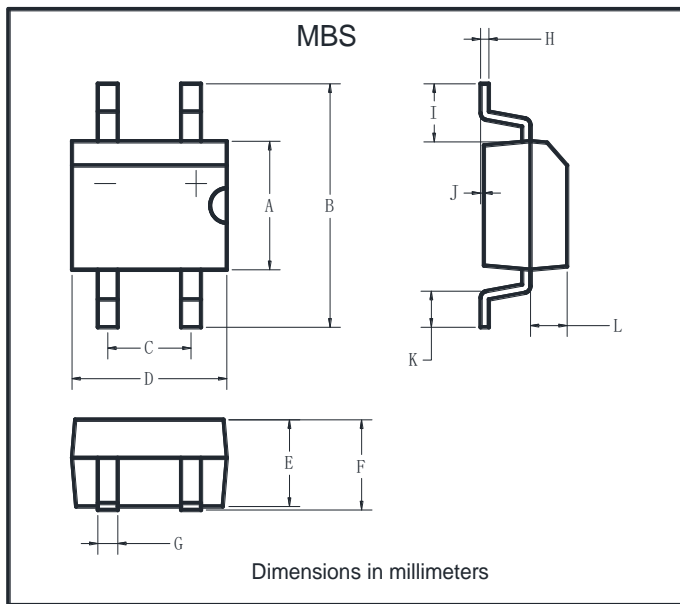
## ■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBSK22S-MBSK220S	F1	Approximate 0.12	2500	5000	40000	13' reel

## ■ Characteristics(Typical)

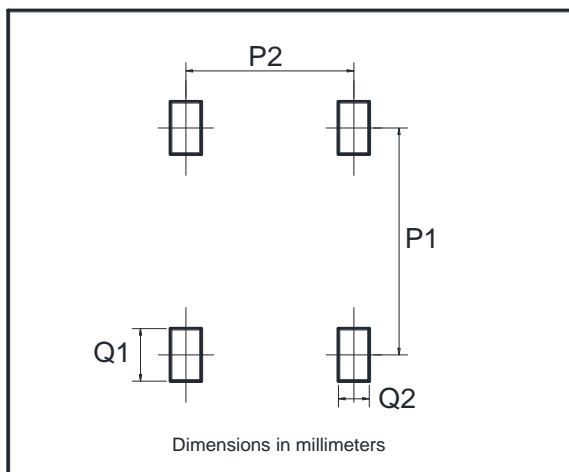


## ■ Outline Dimensions



MBS		
Dim	Min	Max
A	3.60	4.00
B	7.00 Max	
C	2.20	2.60
D	4.50	4.90
E	2.30	2.70
F	3.00 Max	
G	0.56	0.84
H	0.15	0.35
I	1.10	2.12
J	0.20 Max	
K	0.70	1.10
L	0.95	1.53

## ■ Suggested pad layout



Dim	Min
P1	6.00
P2	2.40
Q1	1.84
Q2	1.20

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