

■ 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 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 (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S
Device marking code			MB1S	MB2S	MB4S	MB6S	MB8S	MB10S
Repetitive peak reverse voltage	VRRM	V	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, Ta=40°C	On alumina substrate	Io	A	0.8				
	On glass-epoxy substrate			0.5				
Surge (non-repetitive) forward current @60Hz half sine wave, 1 cycle, Tj=25°C	IFSM	A	30					
Current squared time @1ms≤t≤8.3ms Tj=25°C, rating of per diode	I²t	A²s	3.7					
Storage temperature	Tstg	°C	-55 ~+150					
Junction temperature	Tj	°C	-55 ~+150					
Typical junction capacitance per element (at 4VR and 1MHz)	Cj	pF	13 (max 30)					

■ ELECTRICAL CHARACTERISTICS (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S
Maximum instantaneous forward voltage drop per diode	Vf	V	IFM=0.4A	1.00					
Maximum DC reverse current at rated DC blocking voltage per diode	IRRM	µA	VRM=VRRM	5					

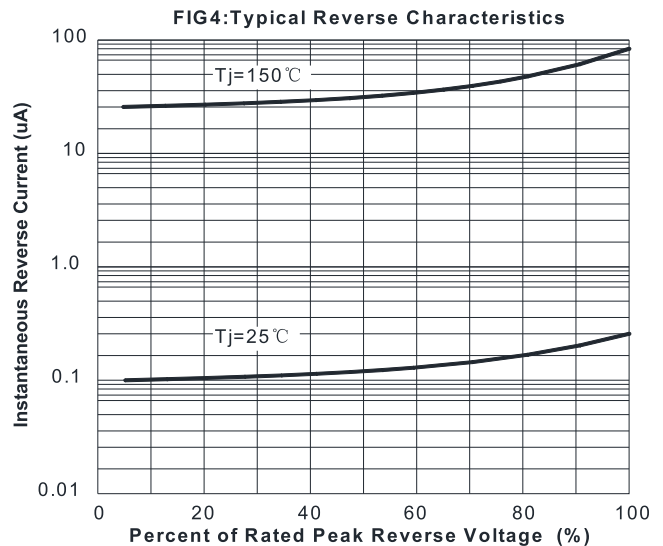
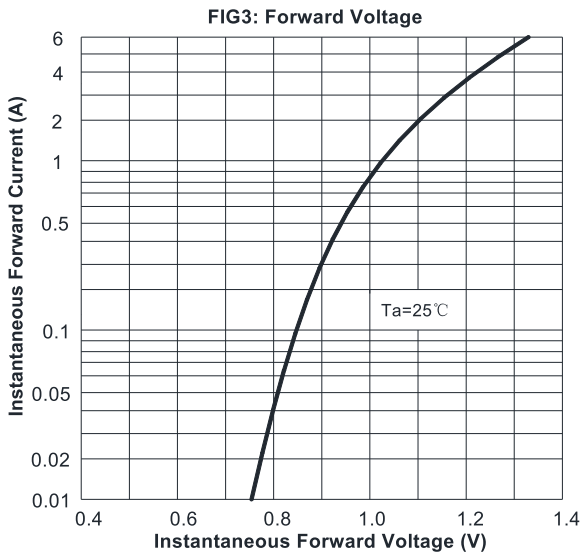
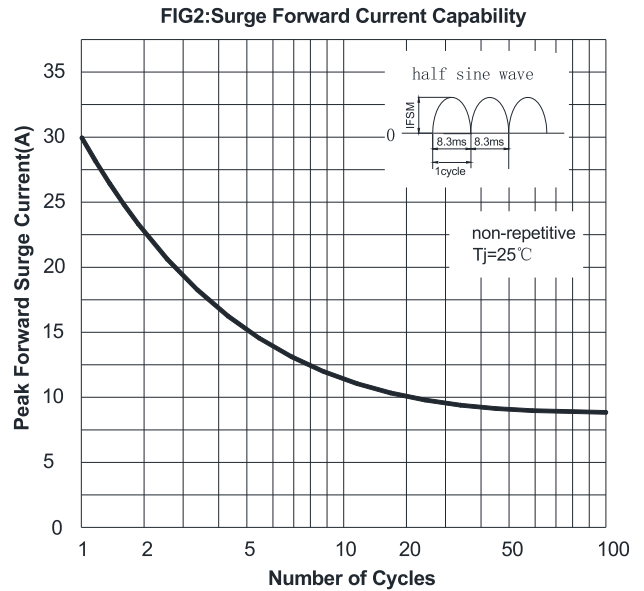
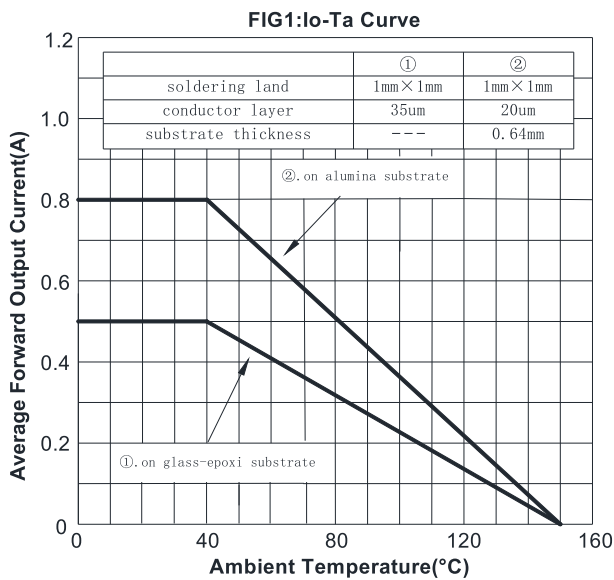
■ **THERMAL CHARACTERISTICS** ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S
Thermal Resistance	Between junction and ambient, On alumina substrate	$R_{\theta J-A}$	$^\circ\text{C/W}$	76.0					
	Between junction and ambient, On glass-epoxi substrate	$R_{\theta J-A}$		134.0					
	Between junction and lead	$R_{\theta J-L}$		20.0					

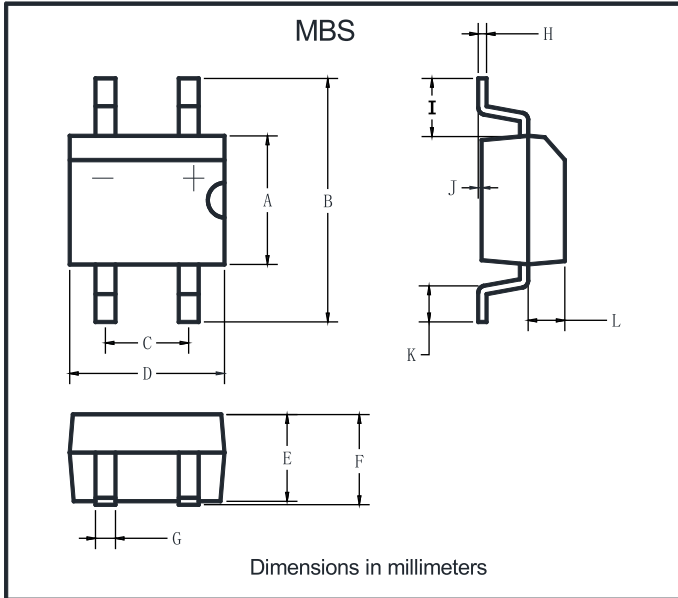
■ **PACKAGING INFORMATION**

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MB1S-MB10S	F1	Approximate 0.12	2500	5000	40000	13' reel
MB1S-MB10S	F2	Approximate 0.12	3000	6000	48000	13' reel

■ **CHARACTERISTICS (TYPICAL)**

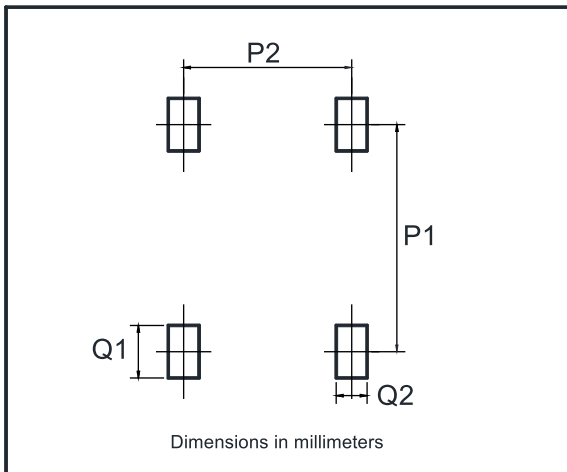


■ **OUTLINE DIMENSIONS**



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