

■ 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:** 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°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBL1S	MBL2S	MBL4S	MBL6S	MBL8S	MBL10S
Device marking code			MBL1S	MBL2S	MBL4S	MBL6S	MBL8S	MBL10S
Repetitive peak reverse voltage	V _{RRM}	V	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, Ta=40°C	On alumina substrate	I _o	A	0.8				
	On glass-epoxi substrate			0.5				
Surge(non-repetitive)forward current @60Hz half sine wave, 1 cycle, Tj=25°C	I _{FSM}	A	30					
Current squared time @1ms≤t≤8.3ms Tj=25°C,rating of per diode	I ² t	A ² S	3.7					
Storage temperature	T _{stg}	°C	-55 ~+150					
Junction temperature	T _j	°C	-55 ~+150					
Typical junction capacitance per element (at 4V _R and 1MHz)	C _j	pF	13 (max 30)					

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBL1S	MBL2S	MBL4S	MBL6S	MBL8S	MBL10S
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =0.4A	1.00					
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM}	μA	V _{RM} =V _{RRM}	5					

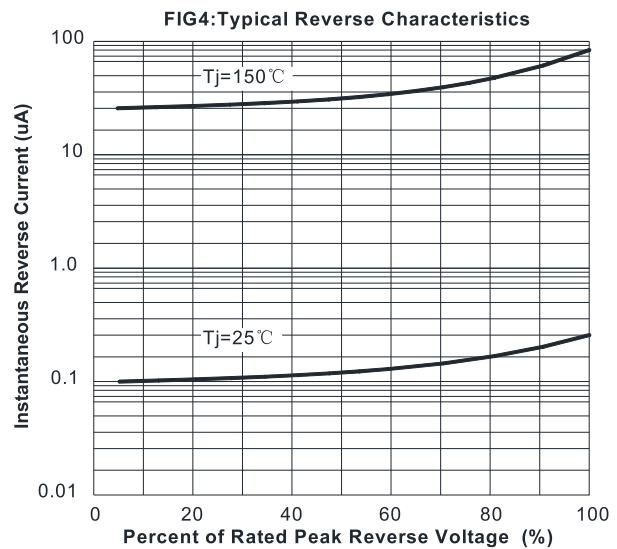
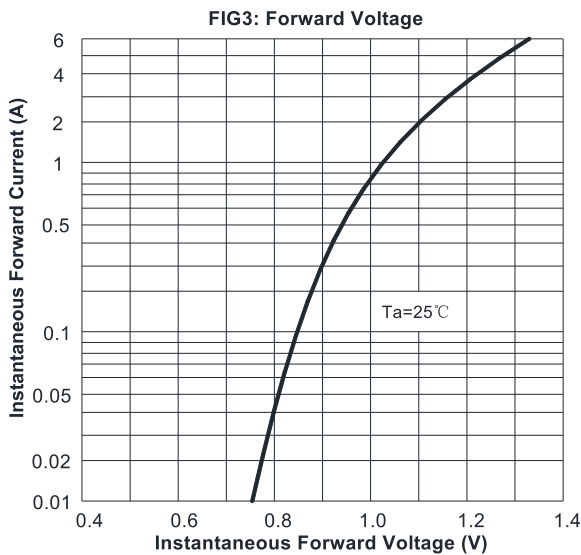
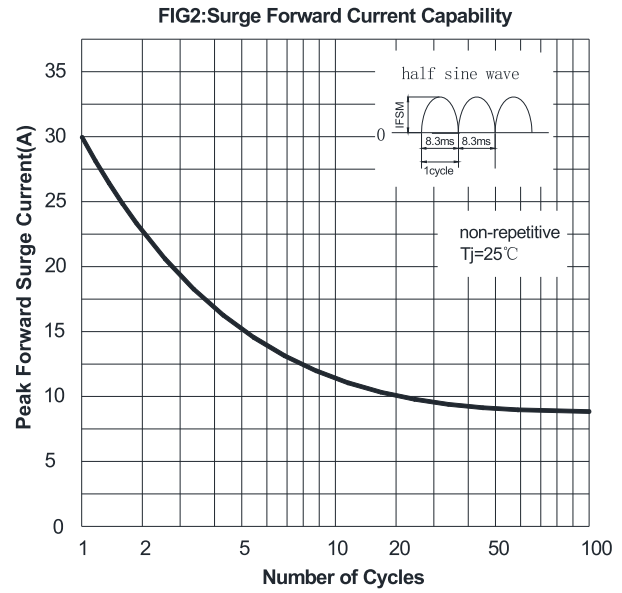
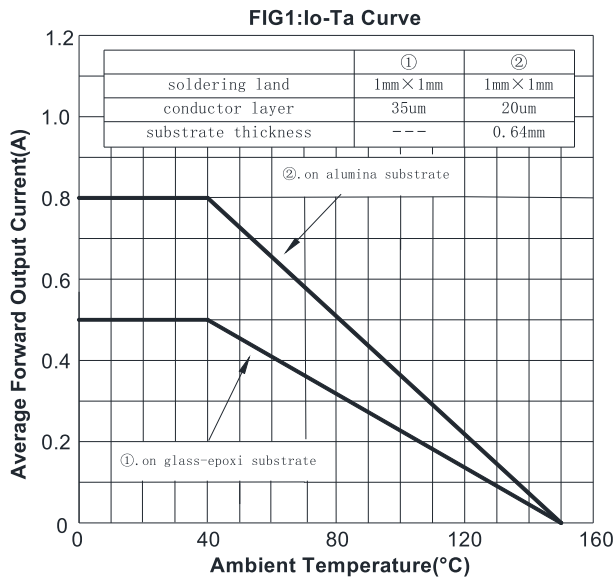
■ THERMAL CHARACTERISTICS (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBL1S	MBL2S	MBL4S	MBL6S	MBL8S	MBL10S
Thermal Resistance	Between junction and ambient, On alumina substrate	R _{θJ-A}	76.0					
	Between junction and ambient, On glass-epoxi substrate	R _{θJ-A}	134.0					
	Between junction and lead	R _{θJ-L}	20.0					

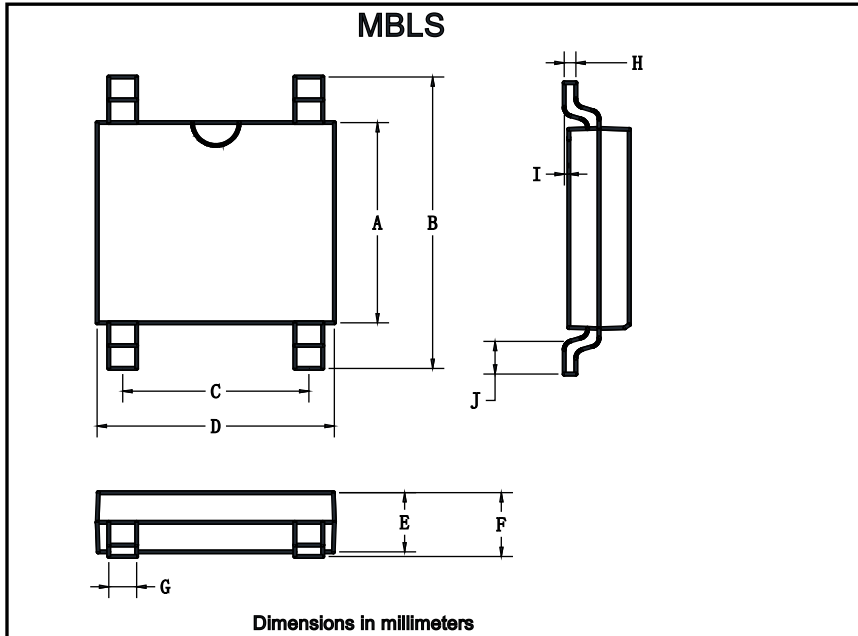
■ **PACKAGING INFORMATION**

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBL1S-MBL10S	F1	Approximate 0.083	4000	8000	64000	13' reel
MBL1S-MBL10S	F3	Approximate 0.083	5000	10000	80000	13' reel

■ **CHARACTERISTICS (TYPICAL)**

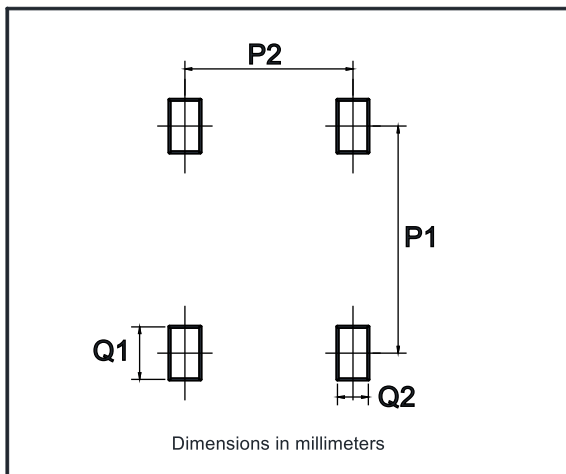


■ **OUTLINE DIMENSIONS**



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