

■ **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** ($T_a=25^{\circ}\text{C}$ 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, $T_a=40^{\circ}\text{C}$	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, $T_j=25^{\circ}\text{C}$	I_{FSM}	A	30					
Current squared time @1ms $\leq t \leq$ 8.3ms $T_j=25^{\circ}\text{C}$,rating of per diode	I^2t	A^2S	3.7					
Storage temperature	T_{stg}	$^{\circ}\text{C}$	-55 ~+150					
Junction temperature	T_j	$^{\circ}\text{C}$	-55 ~+150					

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

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

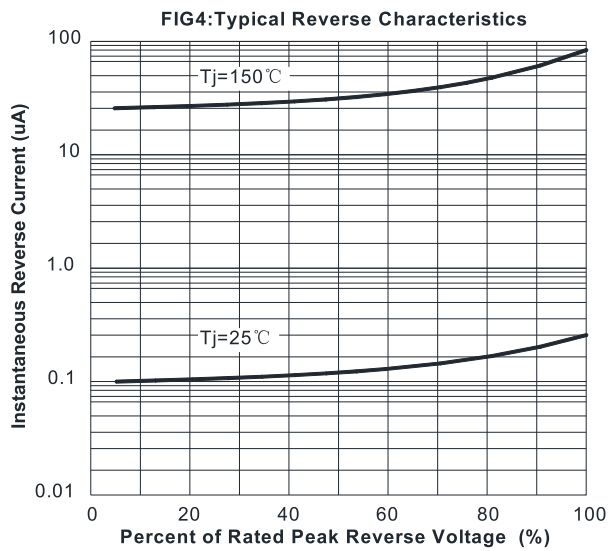
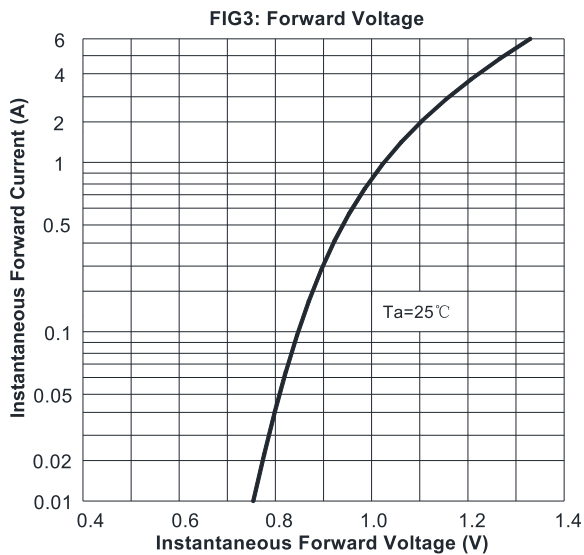
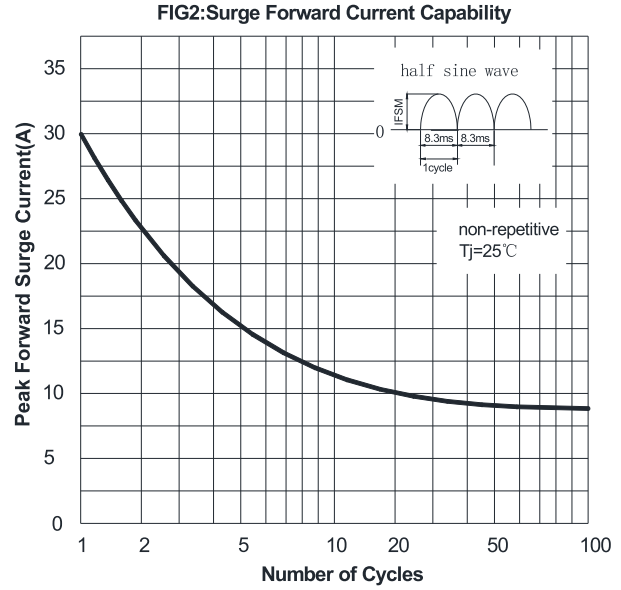
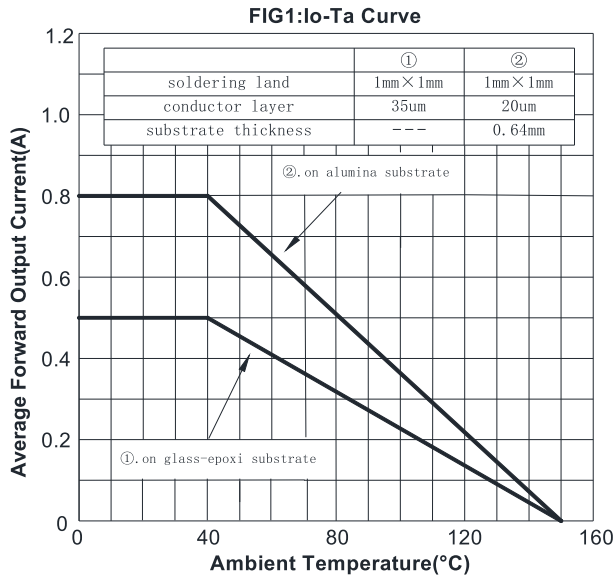
■ **THERMAL CHARACTERISTICS** ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBL1S	MBL2S	MBL4S	MBL6S	MBL8S	MBL10S
Thermal Resistance	Between junction and ambient, On alumina substrate	$R_{\theta J-A}$	$^{\circ}\text{C}/\text{W}$	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				

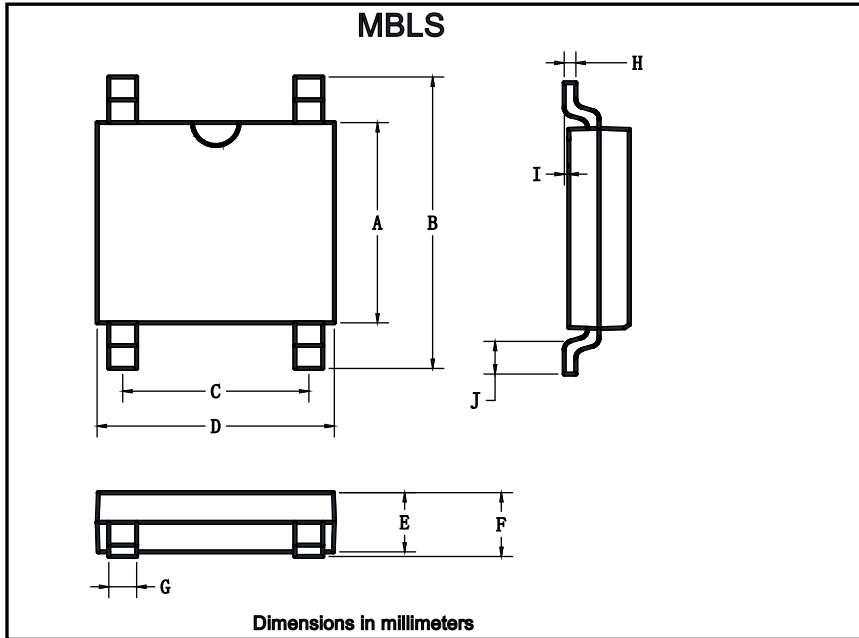
■ **PACKAGING INFORMATION**

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)**

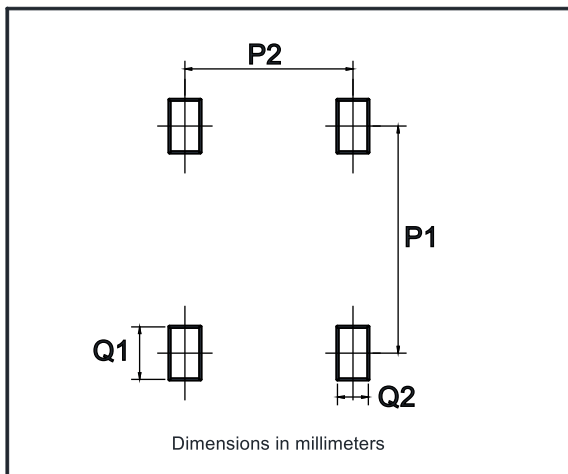


■ **OUTLINE DIMENSIONS**



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