

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:** 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_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	HDL1S	HDL2S	HDL4S	HDL6S	HDL8S	HDL10S
Device marking code			HDL1S	HDL2S	HDL4S	HDL6S	HDL8S	HDL10S
Repetitive peak reverse voltage	VRRM	V	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, T _a =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, T _j =25°C	I _{FSM}	A	25					
Current squared time @1ms≤t≤8.3ms T _j =25°C, rating of per diode	I ² t	A ² s	2.59					
Storage temperature	T _{stg}	°C	-55 ~+150					
Junction temperature	T _j	°C	-55 ~+150					

ELECTRICAL CHARACTERISTICS (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	HDL1S	HDL2S	HDL4S	HDL6S	HDL8S	HDL10S
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					

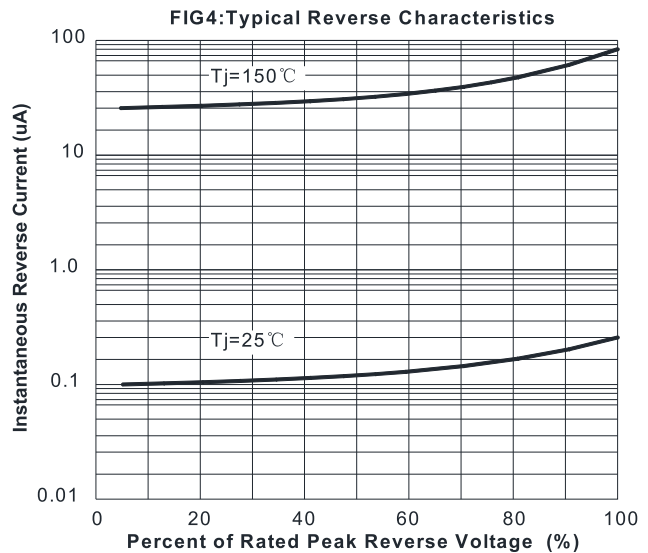
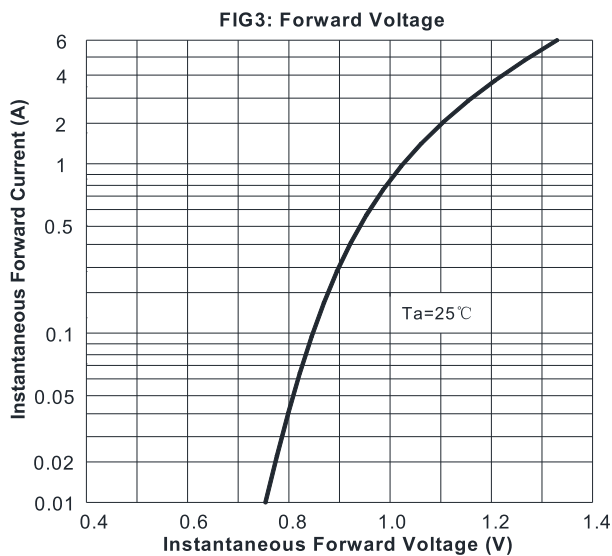
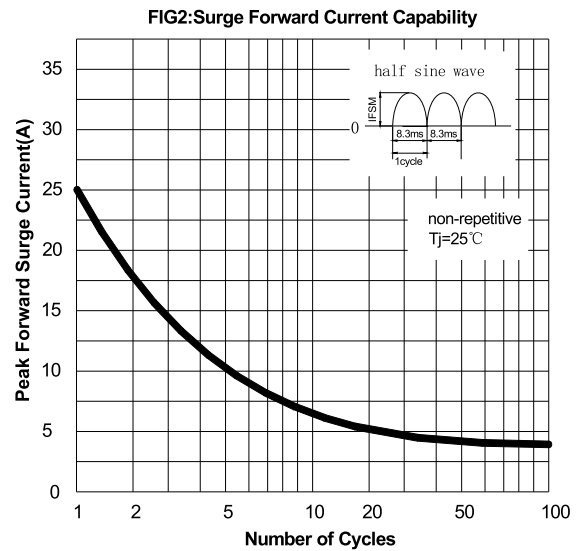
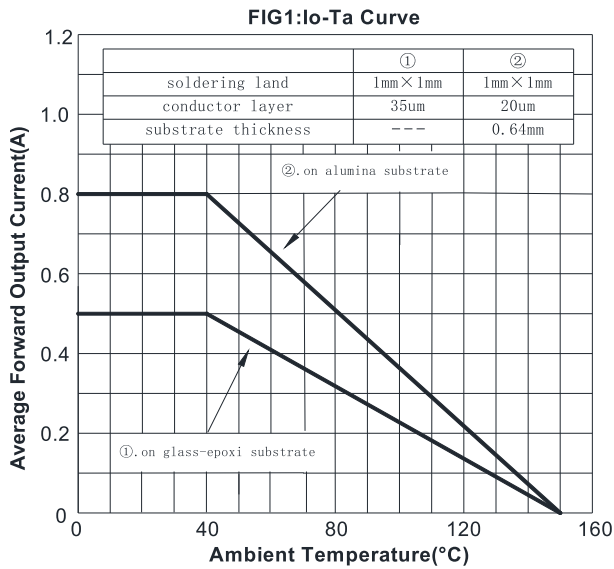
THERMAL CHARACTERISTICS (T_a=25°C Unless otherwise specified)

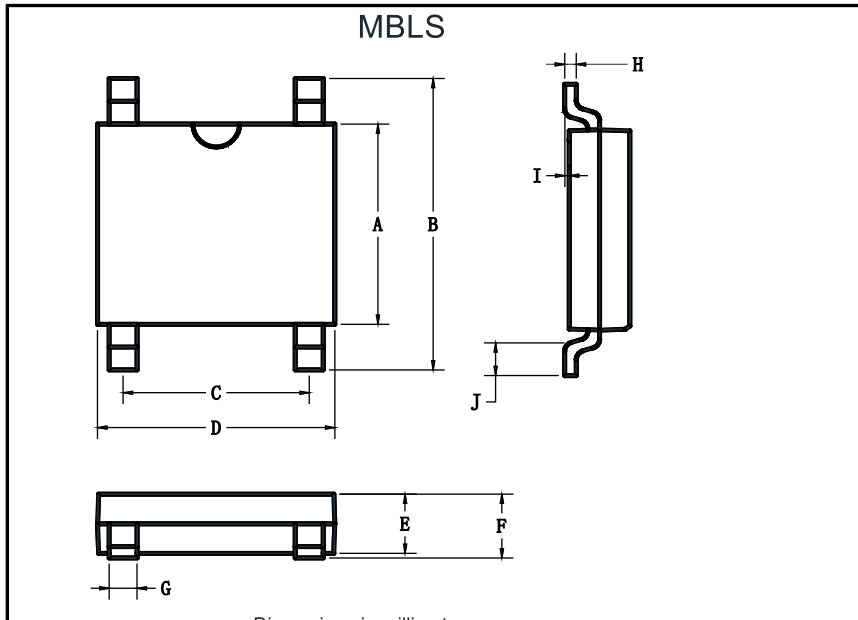
PARAMETER	SYMBOL	UNIT	HDL1S	HDL2S	HDL4S	HDL6S	HDL8S	HDL10S	
Thermal Resistance	Between junction and ambient, On alumina substrate	R _{θJ-A}	°C/W	76.0					
	Between junction and ambient, On glass-epoxi substrate	R _{θJ-A}		134.0					
	Between junction and lead	R _{θJ-L}		20.0					

PACKAGING INFORMATION

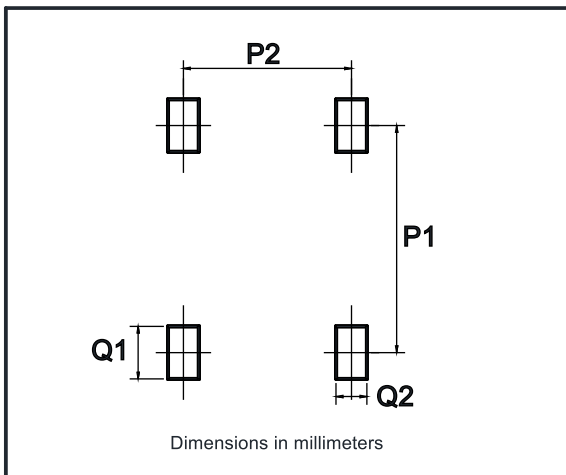
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
HDL1S-HDL10S	F1	Approximate 0.083	4000	8000	64000	13' reel

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