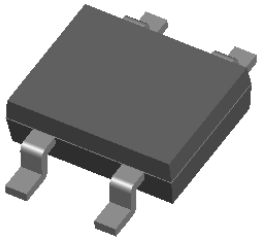
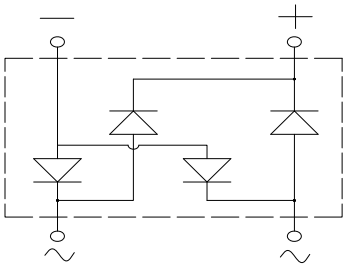
Bridge Rectifiers





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 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℃ 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, Ta=40℃	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℃		I_{FSM}	A	25					
Current squared time @1ms≤t≤8.3ms Tj=25℃,rating of per diode		I^2t	A^2S	2.59					
Storage temperature		Tstg	℃	-55 ~+150					
Junction temperature		Tj	℃	-55 ~+150					

■Electrical Characteristics（T_a=25℃ 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	VRM=VRRM	5					

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	HDL1S	HDL2S	HDL4S	HDL6S	HDL8S	HDL10S
Thermal Resistance	Between junction and ambient, On alumina substrate	RθJ-A	℃/W	76.0					
	Between junction and ambient, On glass-epoxi substrate	RθJ-A		134.0					
	Between junction and lead	RθJ-L		20.0					

■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM 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)

FIG1:Io-Ta Curve

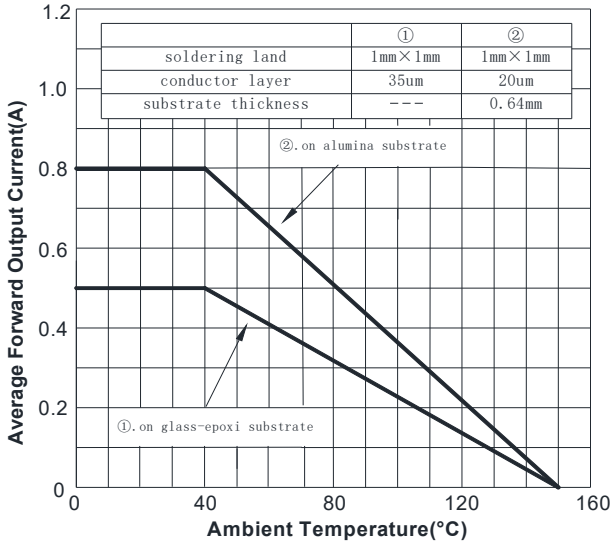


FIG2:Surge Forward Current Capability

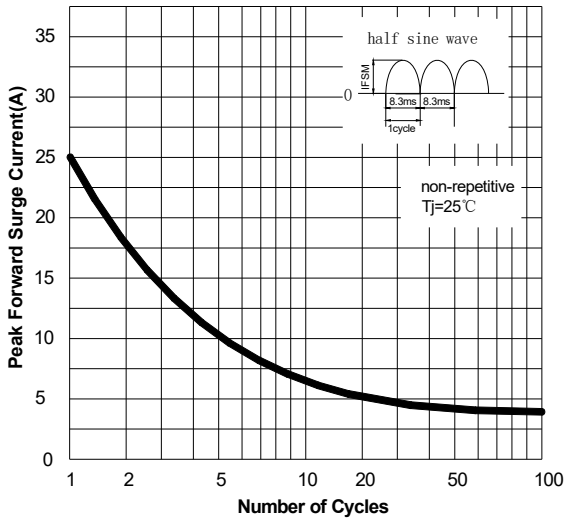


FIG3: Forward Voltage

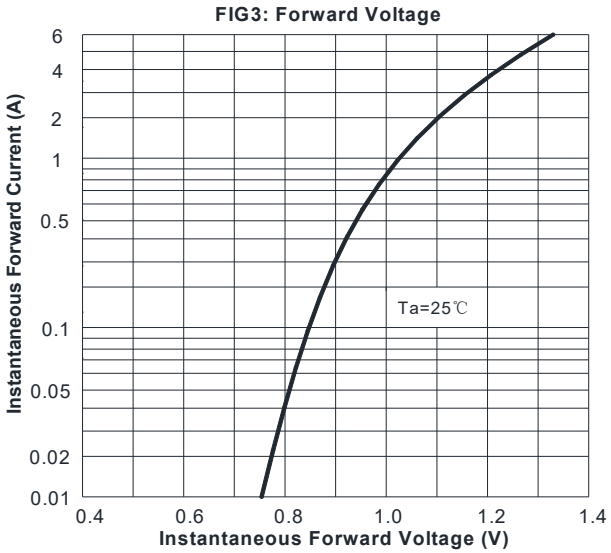
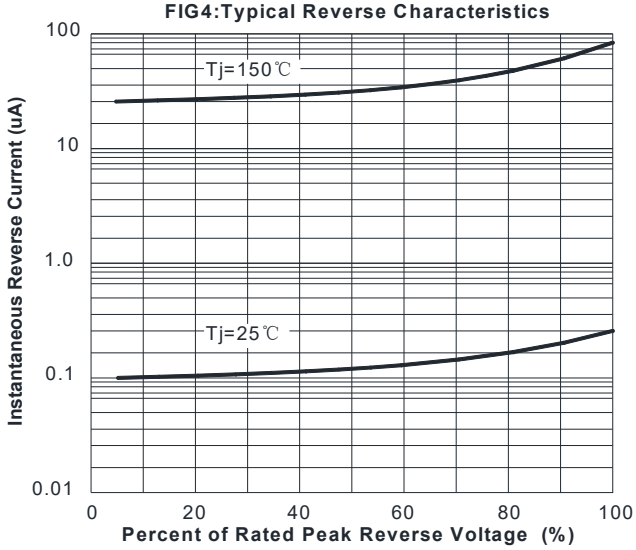
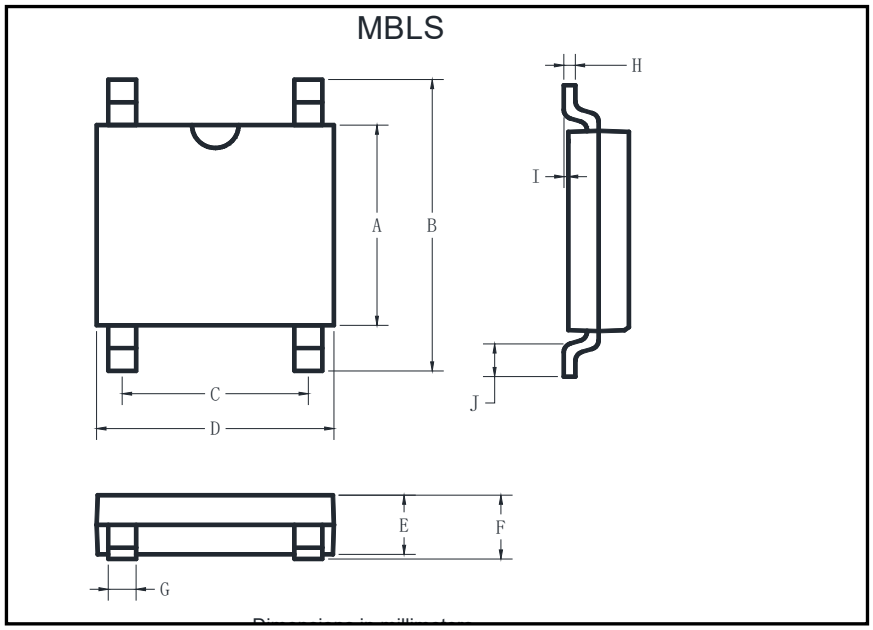


FIG4:Typical Reverse Characteristics

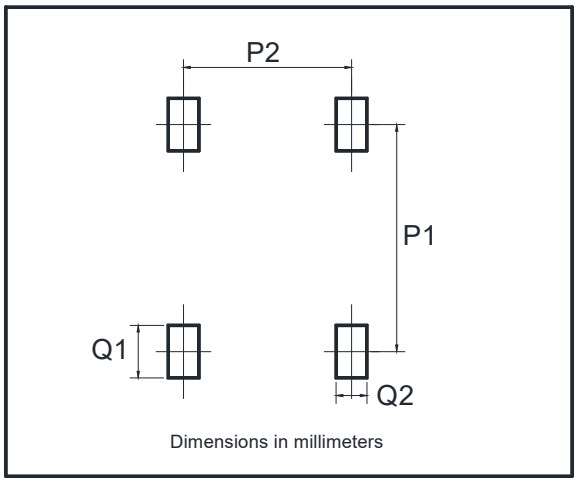


■ Outline Dimensions



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

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