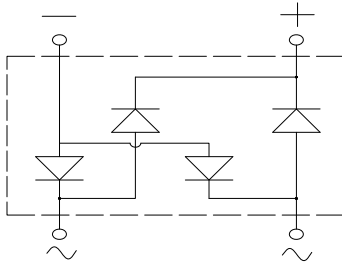
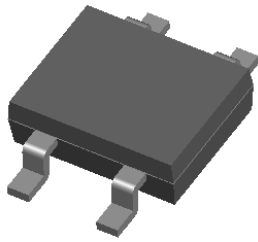


Bridge Rectifiers



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 high frequency 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°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	HMBL1S	HMBL2S	HMBL3S	HMBL4S	HMBL6S	HMBL8S	HMBL10S
Device marking code				HMBL1S	HMBL2S	HMBL3S	HMBL4S	HMBL6S	HMBL8S	HMBL10S
Repetitive peak reverse voltage		V _{RRM}	V	100	200	300	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						
Storage temperature		T _{stg}	°C	-55 ~+150						
Junction temperature		Tj	°C	-55 ~+150						

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS		HMBL1S	HMBL2S	HMBL3S	HMBL4S	HMBL6S	HMBL8S	HMBL10S
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =0.5A		1.00		1.30		1.70		
Maximum reverse recovery time	t _{rr}	ns	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A		50				75		
Peak Reverse Current	I _{RRM1}	μA	V _{RM} =V _{RRM}	Ta =25°C	10						
	Ta =100°C			100							



HMBL1S THRU HMBL10S

■ Thermal Characteristics ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	HMBL1S	HMBL2S	HMBL3S	HMBL4S	HMBL6S	HMBL8S	HMBL10S
Thermal Resistance	Between junction and ambient, On alumina substrate	$R_{\theta JA}$	$^{\circ}\text{C/W}$	76.0						
	Between junction and ambient, On glass-epoxy substrate	$R_{\theta JA}$		134.0						
	Between junction and lead	$R_{\theta JL}$		20.0						

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
HMBL1S-HMBL10S	F1	Approximate 0.083	4000	8000	64000	13' reel
HMBL1S-HMBL10S	F3	Approximate 0.083	5000	10000	80000	13' reel

■ Characteristics(Typical)

FIG1:I_o-T_a Curve

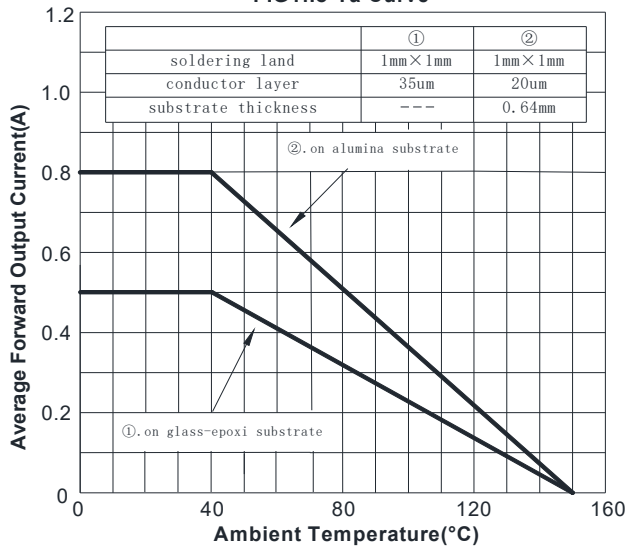


FIG2: Surge Forward Current Capability

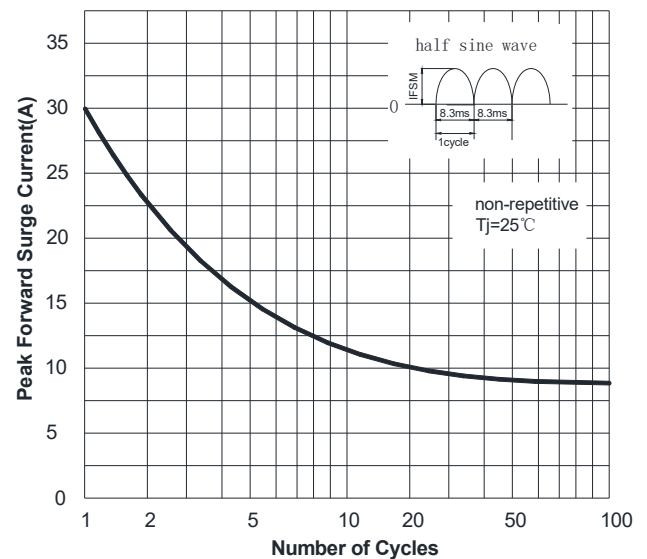


FIG3: Forward Voltage

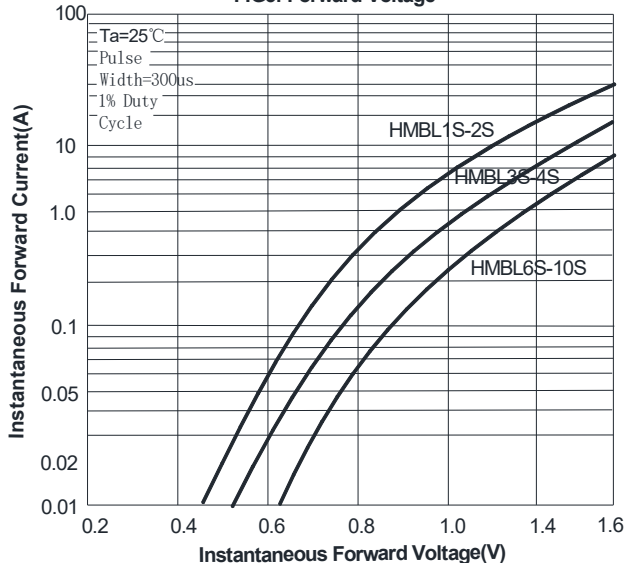
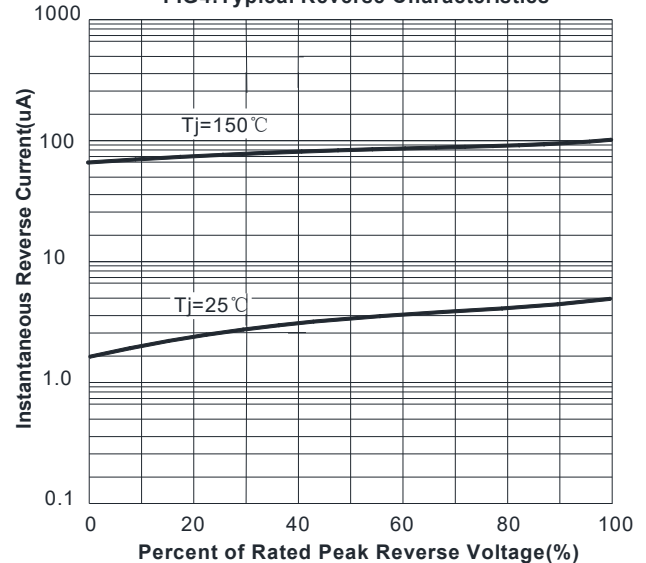


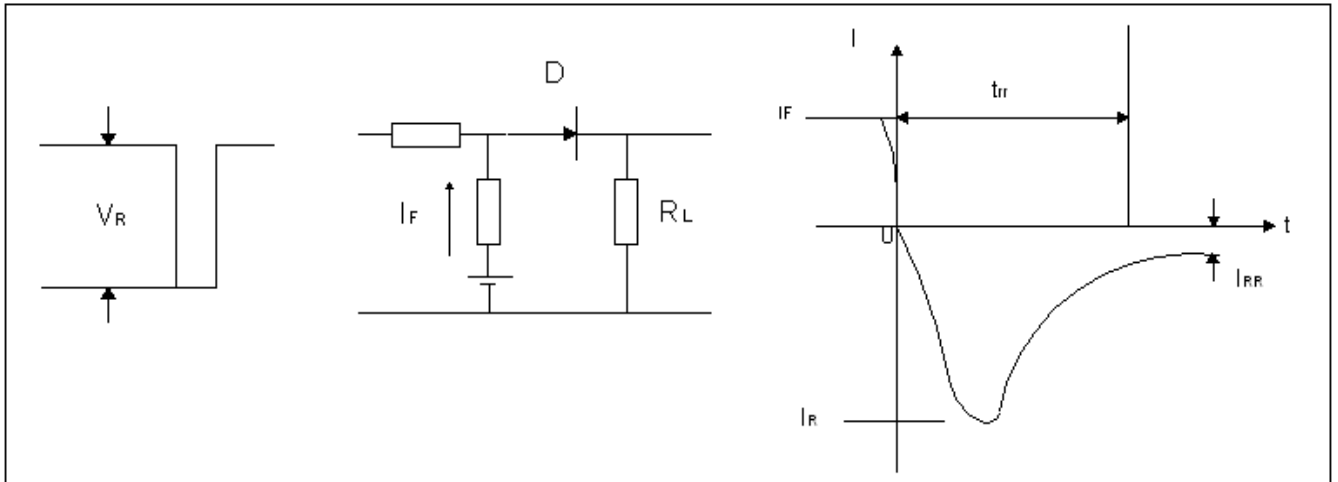
FIG4: Typical Reverse Characteristics



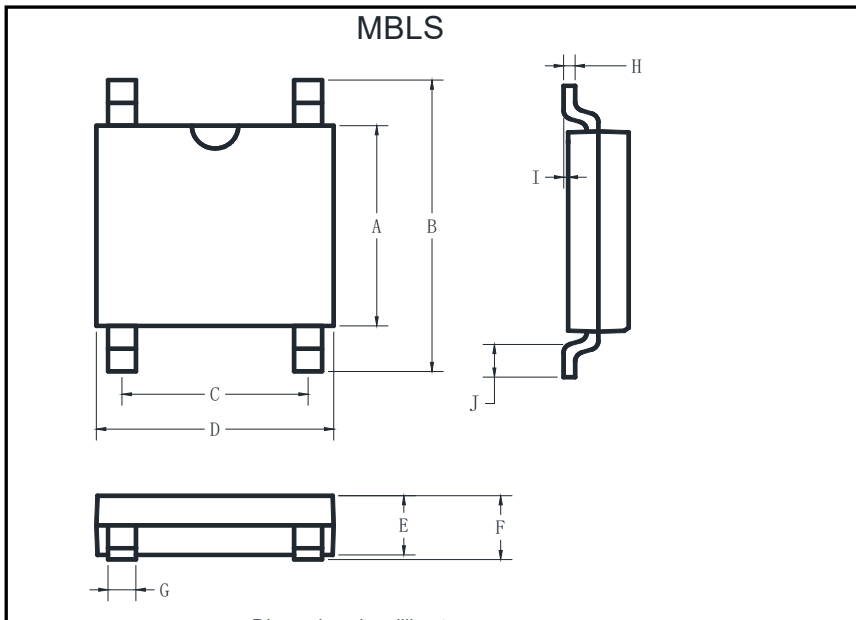


HMBL1S THRU HMBL10S

FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

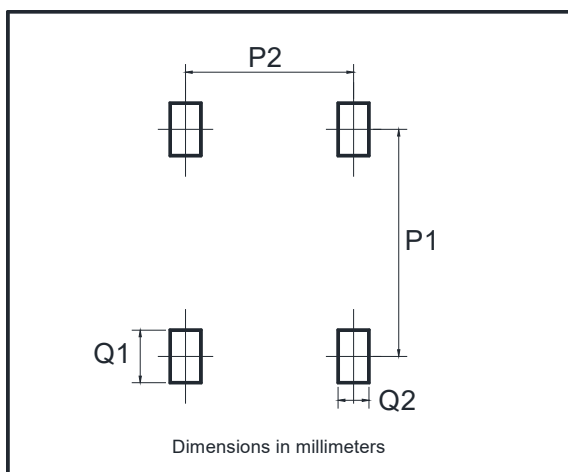


■ Outline Dimensions



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



HMBL1S THRU HMBL10S

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