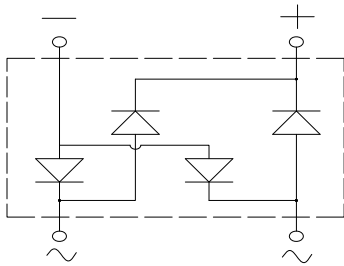
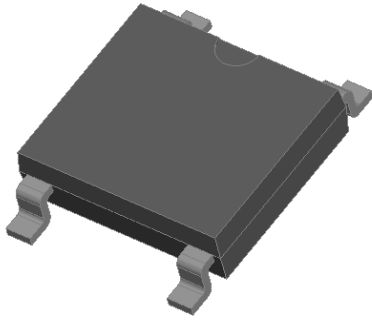


High Efficient Bridge Rectifiers



Features

- UL recognition, file #E313149
- Ideal for automated placement
- Glass passivated chip junction
- 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 SMPS, lighting ballast, adapter, battery charger, home appliances, office equipment, and telecommunication applications.

Mechanical Data

- **Package:** ABS
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, Halogen free
- **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	HABS6	HABS8	HABS10
Device marking code			HABS6	HABS8	HABS10
Maximum Repetitive Peak Reverse Voltage	VRRM	V	600	800	1000
Maximum RMS Voltage	VRMS	V	420	560	700
Maximum DC blocking Voltage	VDC	V	600	800	1000
Average rectified output current @60Hz sine wave, R-load, $T_c=120^\circ\text{C}$	I_O	A	1.0		
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_j=25^\circ\text{C}$	IFSM	A	30		
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_j=25^\circ\text{C}$			60		
Current squared time @1ms≤t<8.3ms $T_j=25^\circ\text{C}$, Rating of per diode	I^2t	A ² s	3.74		
Storage temperature	T_{stg}	°C	-55 ~ +150		
Junction temperature	T_j	°C	-55 ~ +150		

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	HABS6	HABS8	HABS10
Maximum reverse recovery time	t_r	ns	$I_F=0.5A, I_R=1.0A, I_T=0.25A$	75		
Maximum instantaneous forward voltage drop per diode	V _F	V	IFM=0.5A	1.7		
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	μA	$T_j=25^\circ\text{C}$	5		
			$T_j=125^\circ\text{C}$	100		
Typical junction capacitance	C _j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	12		



HABS6 THRU HABS10

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

PARAMETER		SYMBOL	UNIT	HABS6	HABS8	HABS10
Thermal Resistance	Between junction and ambient	$R\theta\text{-A}$	$^\circ\text{C/W}$	62.5		
	Between junction and lead	$R\theta\text{-L}$		25.0		
	Between junction and case	$R\theta\text{-C}$		8.0		

Note: Device mounted on P.C.B with 35mm*25mm*1.7mm.

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
HABS6 - HABS10	F1	Approximate 0.095	4000	/	64000	13" reel
HABS6 - HABS10	F5	Approximate 0.095	5000	/	80000	13" reel

■ Characteristics (Typical)

FIG1: I_o - T_c Curve

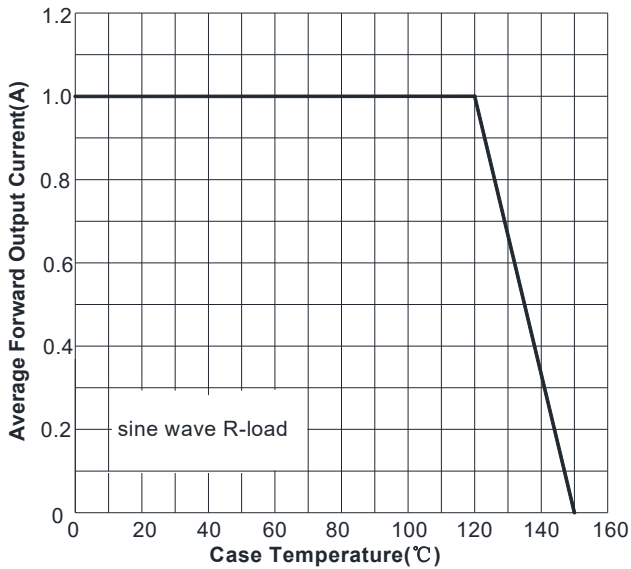


FIG2: Surge Forward Current Capability

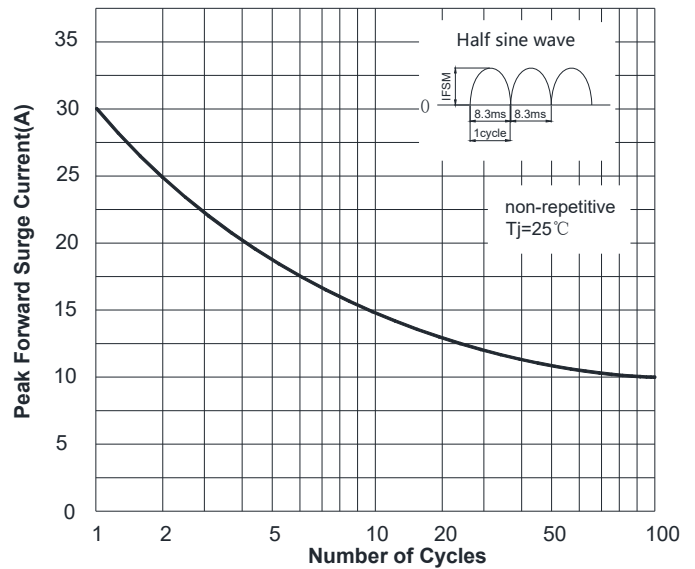


FIG3: Typical Forward Voltage

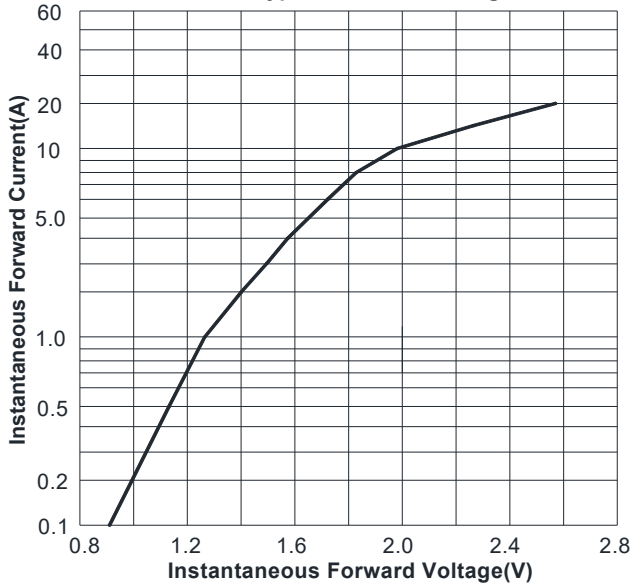


FIG4: Typical Reverse Characteristics

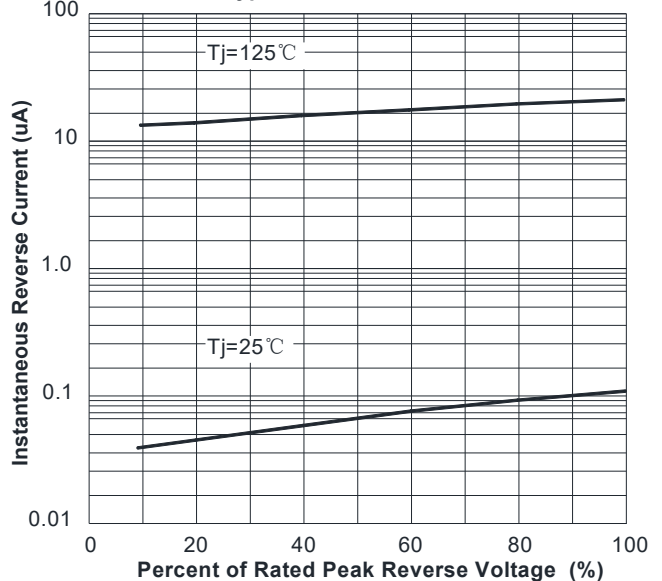
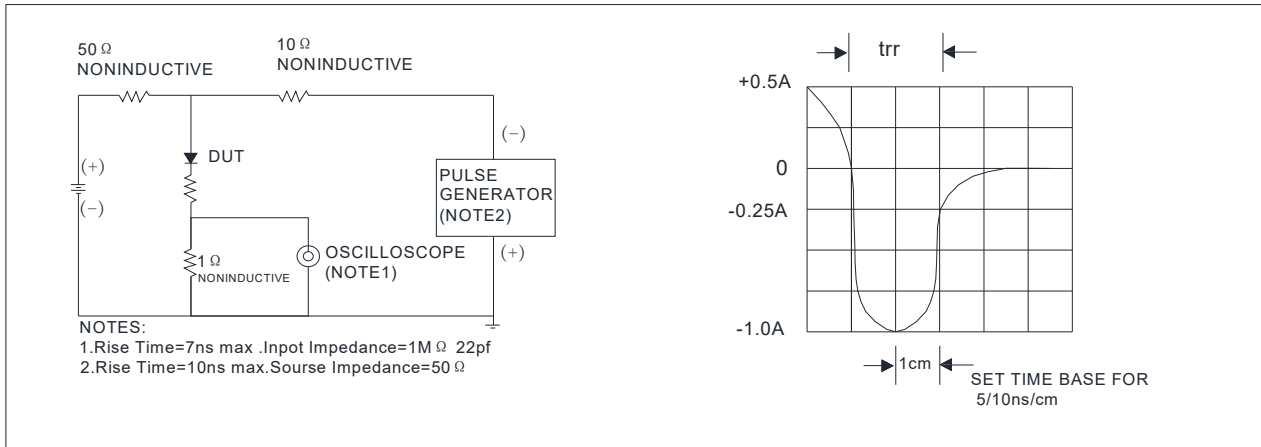
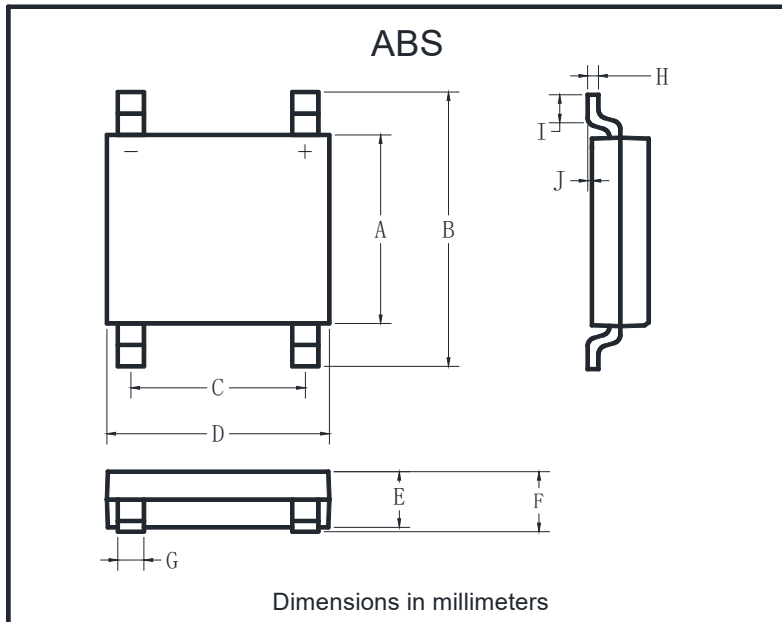


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

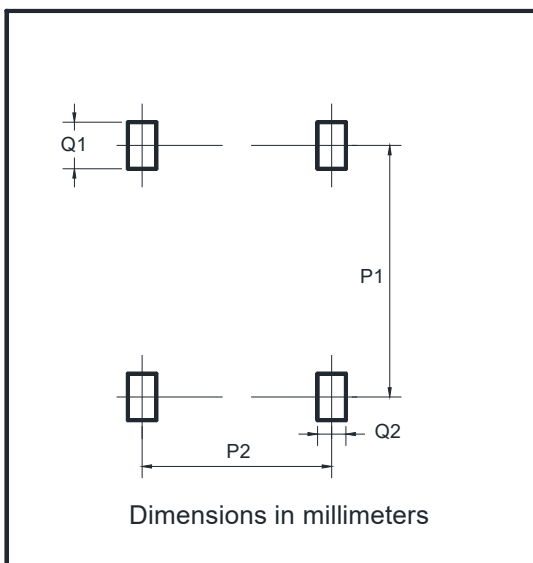


■ Outline Dimensions



ABS		
Dim	Min	Max
A	4.30	4.50
B	6.00	6.40
C	3.90	4.10
D	4.90	5.10
E	1.25	1.45
F	1.60 Max	
G	0.60	0.70
H	0.15	0.25
I	0.30	0.80
J	0.02	0.15

■ Suggested pad layout



Dim	Min
P1	5.72
P2	4.00
Q1	1.00
Q2	0.90



HABS6 THRU HABS10

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The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

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