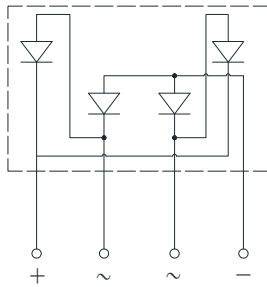
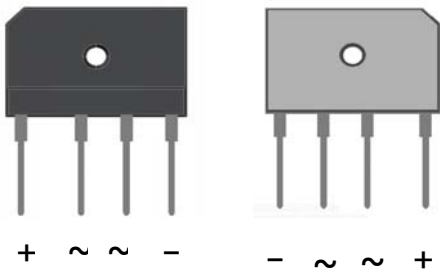


Super Fast Recovery Bridge Rectifiers



Features

- UL recognition, file #E230084
- Glass passivated chip junction
- Thin single in-line package
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

General purpose use in AC/DC bridge full wave rectification for switching power supply, home appliances, office equipment, industrial automation applications.

Mechanical Data

- **Package:** PB
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 (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	EPB5006	
Device marking code			EPB5006	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	600	
Maximum RMS Voltage	V_{RMS}	V	420	
Maximum DC blocking Voltage	V_{DC}	V	600	
Average rectified output current @60Hz sine wave, R-load,	With heatsink $T_c = 100^\circ\text{C}$	I_o	A	50.0
	Without heatsink $T_a = 25^\circ\text{C}$			3.5
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_j = 25^\circ\text{C}$	I_{FSM}	A	380	
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_j = 25^\circ\text{C}$			760	
Current squared time @1ms ≤ t ≤ 8.3ms $T_j = 25^\circ\text{C}$, Rating of per diode	I^2t	A^2s	599	
Storage temperature	T_{stg}	°C	-55 ~ +150	
Junction temperature	T_j	°C	-55 ~ +150	
Dielectric strength @ Terminals to case, AC 1 minute	V_{dis}	KV	2.5	
Mounting torque @Recommend torque: 5kg·cm	T_{or}	kg·cm	8	

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	EPB5006
Maximum reverse recovery time	T _{RR}	ns	I _F =0.5A, I _R =1.0A, I _{RR} =0.25A	50
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =25.0A	2.0
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	μA	T _j =25°C	5
			T _j =125°C	200
Typical junction capacitance	C _j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	210

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

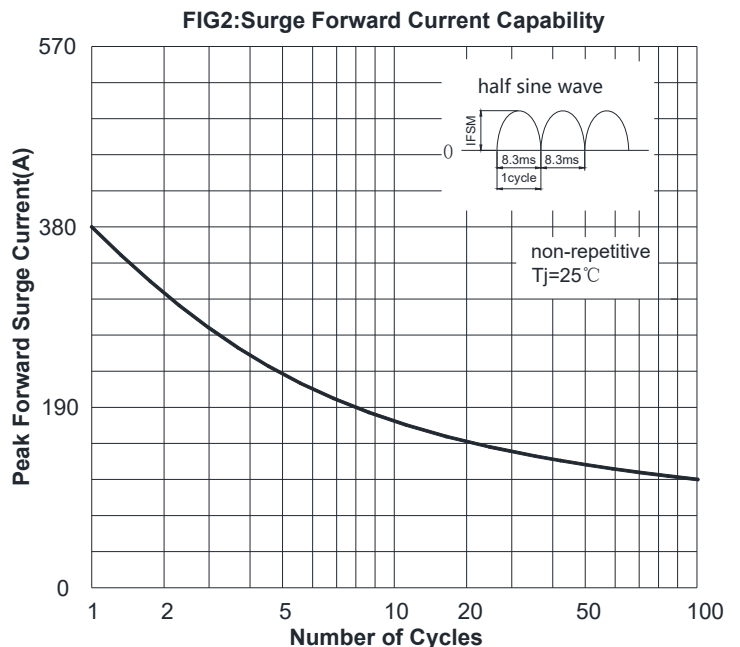
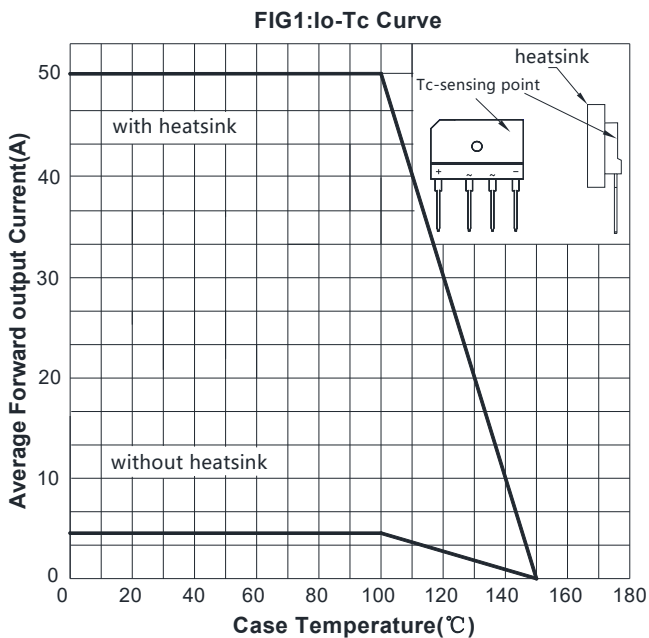
PARAMETER		SYMBOL	UNIT	EPB5006
Typical Thermal Resistance	Between junction and ambient, Without heatsink	R _{θJ-A}	°C/W	17
	Between junction and case, With heatsink	R _{θJ-C}		0.6

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
EPB5006	B1	Approximate 7.5	15	750	1500	TUBE

■ Characteristics (Typical)



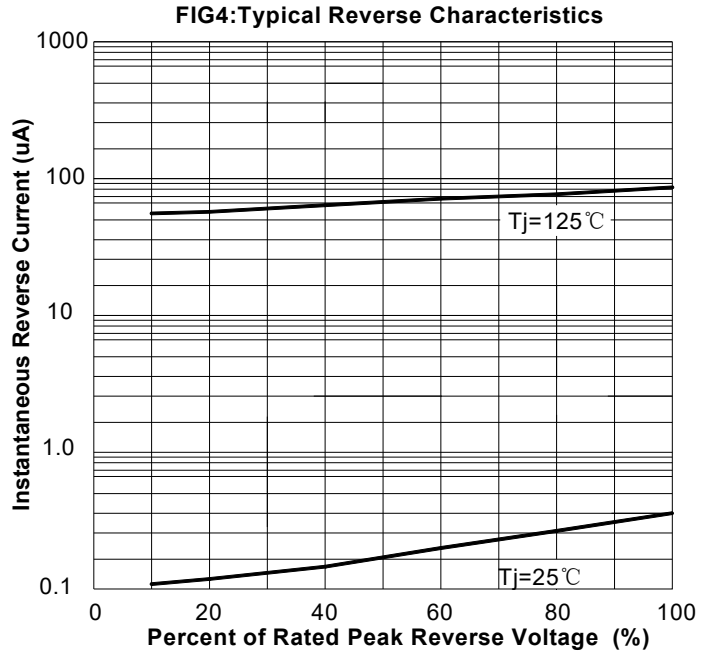
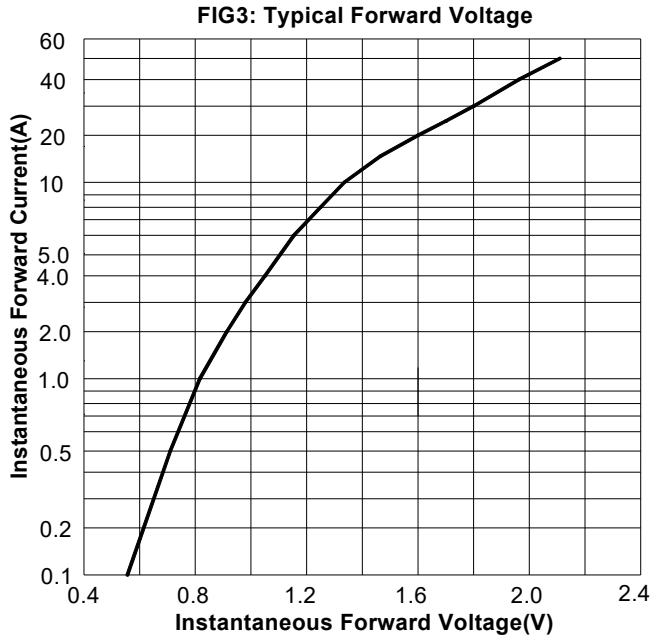
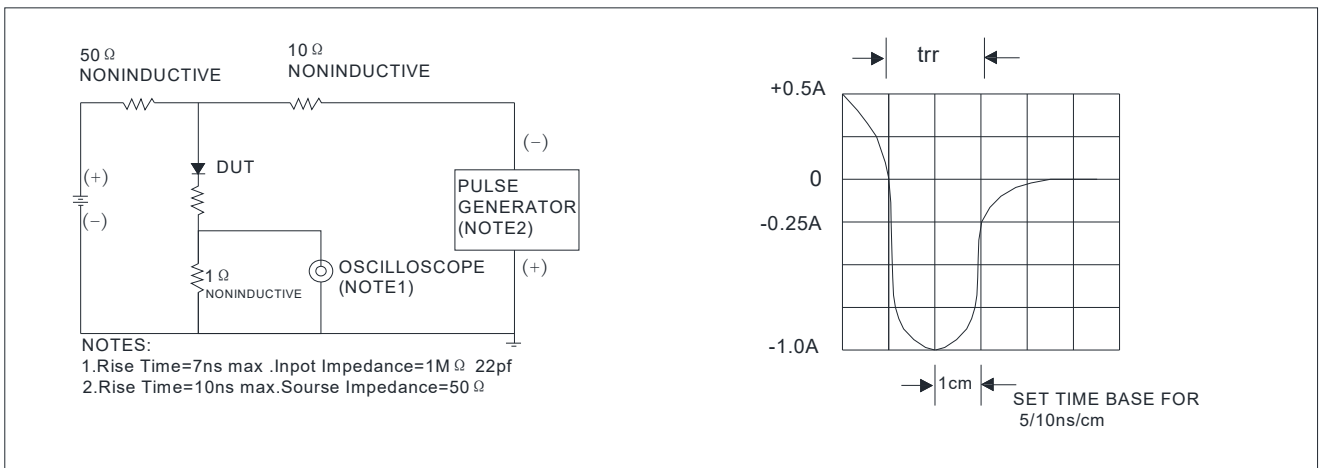
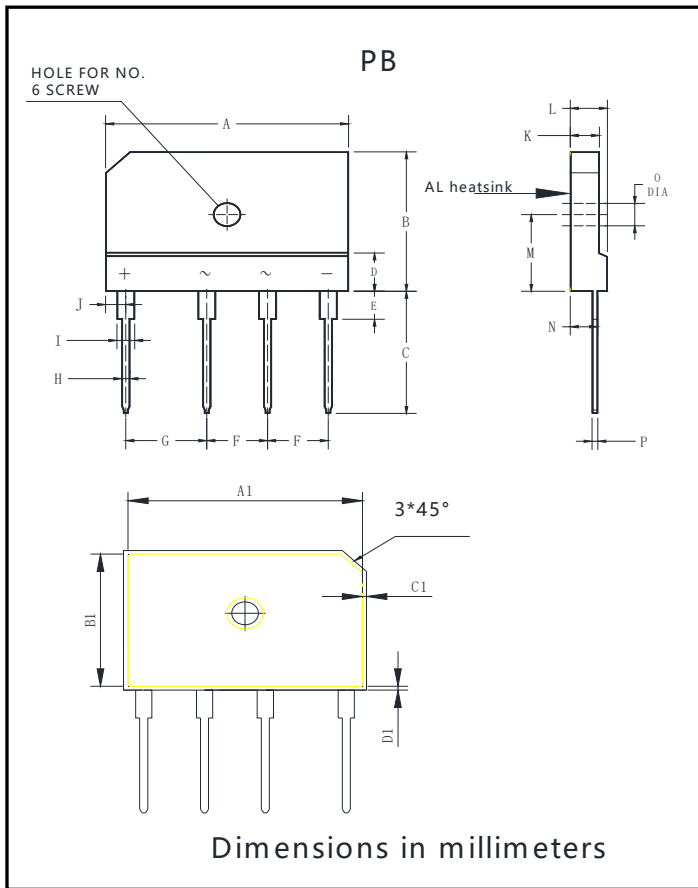


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time





■ Outline Dimensions



PB		
Dim	Min	Max
A	29.7	30.3
B	19.7	20.3
C	17.0	18.0
D	4.8	5.8
E	3.8	4.2
F	7.3	7.7
G	9.8	10.2
H	0.9	1.1
I	2.0	2.4
J	2.3	2.7
K	3.4	3.8
L	4.4	4.8
M	10.8	11.2
N	3.1	3.7
O	3.1	3.4
P	0.6	0.8
A1	28.75	29.15
B1	18.75	19.15
C1	0.3	0.7
D1	0.3	0.7



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