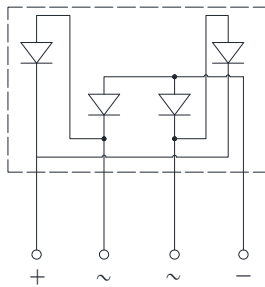
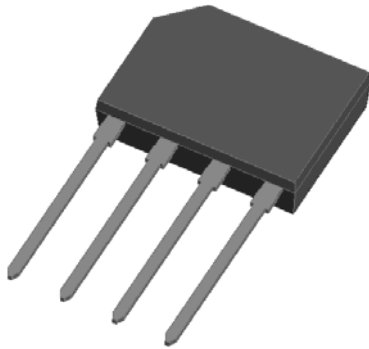


Fast Recovery Bridge Rectifiers



Features

- UL recognition, file #E230084
- Glass passivated chip junction
- Ideal for printed circuit boards
- 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 monitor, TV, printer, power supply, switching mode power supply, adapter, audio equipment, and home appliances applications.

Mechanical Data

- **Package:** GBP
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 ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	RGBP810	
Device marking code			RGBP810	
Maximum Repetitive Peak Reverse Voltage	VRRM	V	1000	
Maximum RMS Voltage	VRMS	V	700	
Maximum DC blocking Voltage	VDC	V	1000	
Average rectified output current @60Hz sine wave, R-load	With heatsink $T_c = 125^\circ\text{C}$	IO	A	8.0
	Without heatsink $T_a = 25^\circ\text{C}$			1.8
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_j=25^\circ\text{C}$	IFSM	A	170	
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_j=25^\circ\text{C}$			340	
Current squared time @1ms≤t<8.3ms $T_j=25^\circ\text{C}$, Rating of per diode	I^2t	A ² s	120	
Dielectric strength @ terminals to case, AC 1 minute	Vdis	KV	2	
Storage temperature	T _{stg}	°C	-55 ~ +150	
Junction temperature	T _j	°C	-55 ~ +150	



RGBP810

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	RGBP810
Maximum reverse recovery time	t _r	ns	I _F =0.5A, I _R =1.0A, I _r =0.25A	500
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =4.0A	1.3
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	μA	T _j =25°C	5
			T _j =125°C	100
Typical junction capacitance	C _j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	48

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

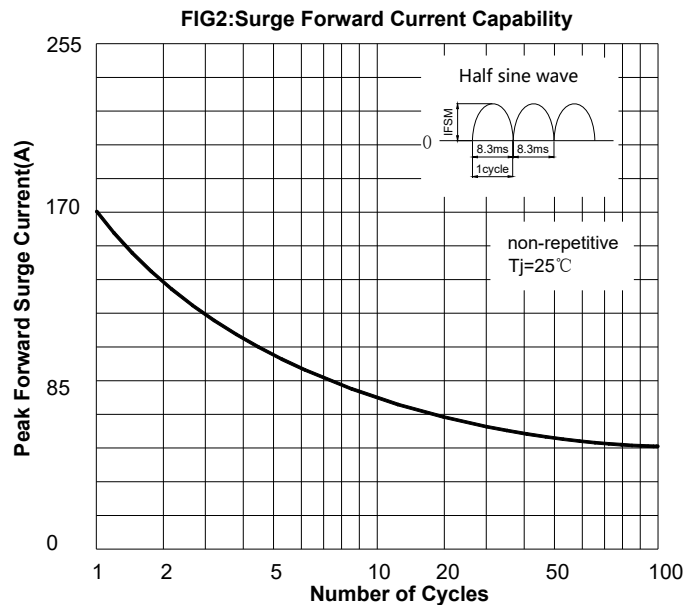
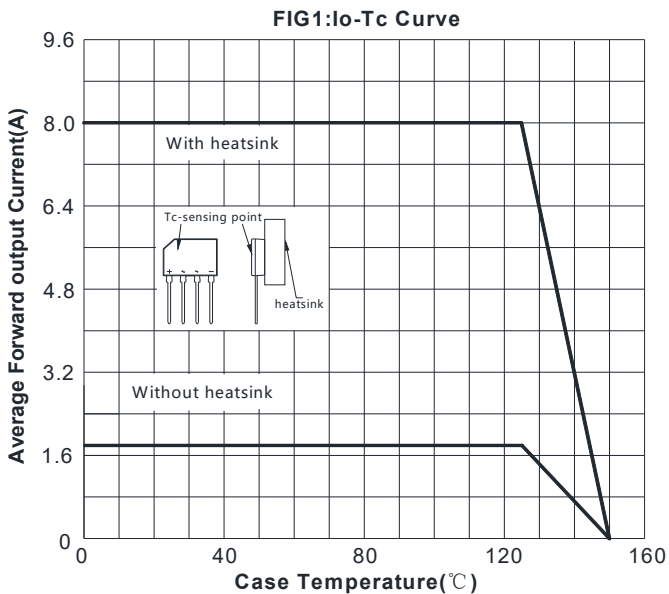
PARAMETER		SYMBOL	UNIT	RGBP810
Thermal Resistance	Between junction and ambient, Without heatsink	R _{θJ-A}	°C/W	45.0
	Between junction and case, With heatsink	R _{θJ-C}		1.5

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
RGBP810	B1	Approximate 1.4	35	2100	4200	TUBE

■ Characteristics (Typical)





RGBP810

FIG3: Typical Forward Voltage

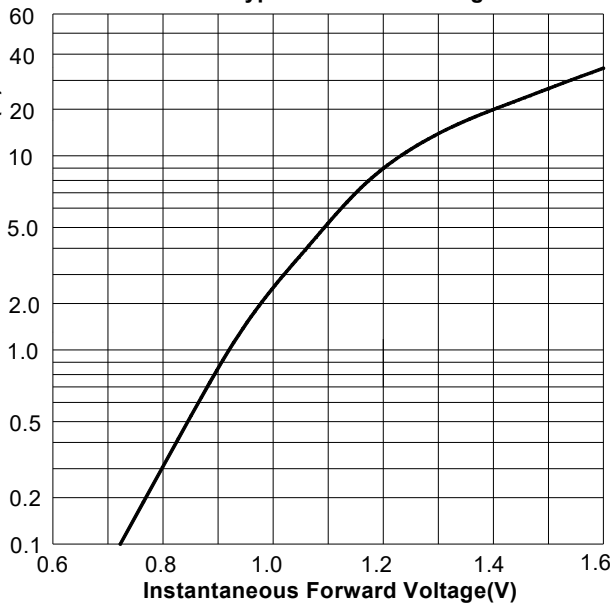


FIG4: Typical Reverse Characteristics

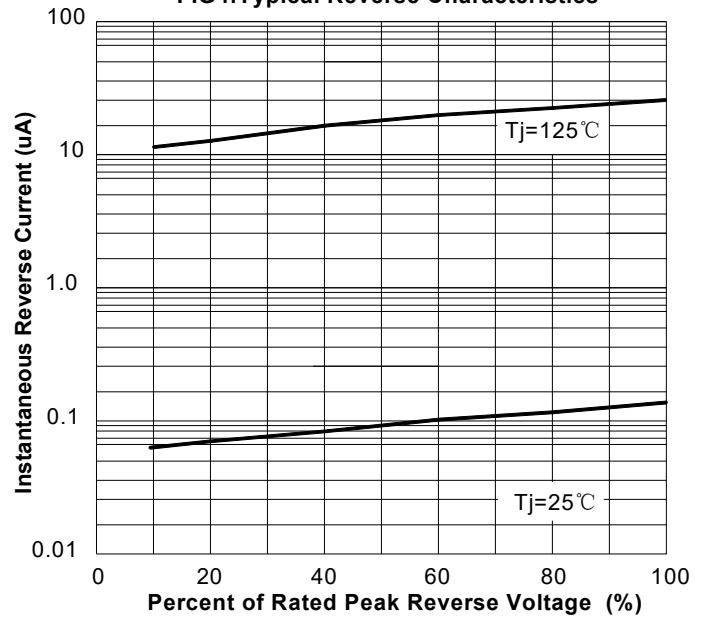
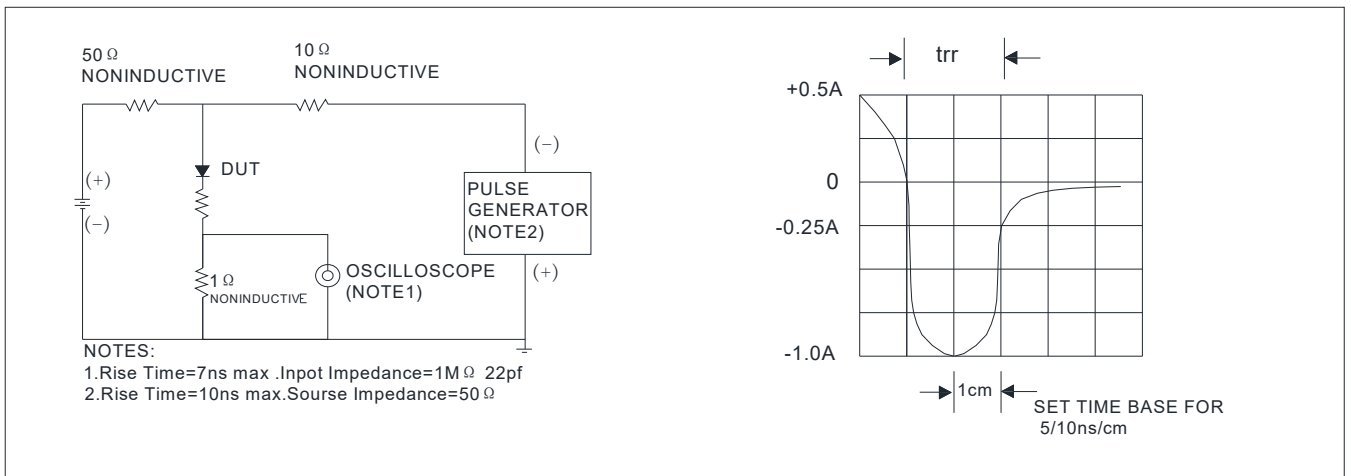


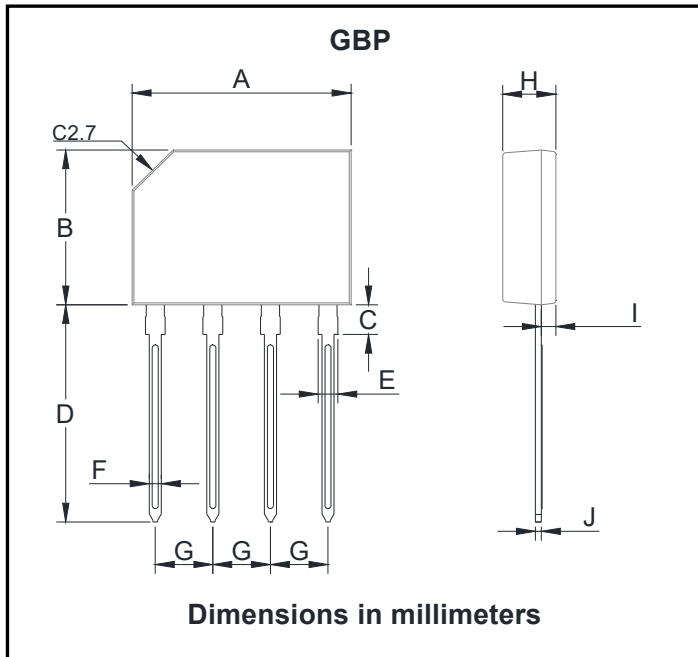
FIG.5: Diagram of circuit and Testing wave form of reverse recovery time





RGBP810

■ Outline Dimensions



GBP		
Dim	Min	Max
A	14.25	14.75
B	10.10	10.60
C	1.80	2.20
D	14.25	14.73
E	1.22	1.42
F	0.76	0.86
G	3.70	3.90
H	3.35	3.65
I	0.80	1.10
J	0.35	0.55



RGBP810

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