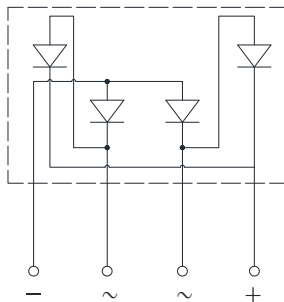
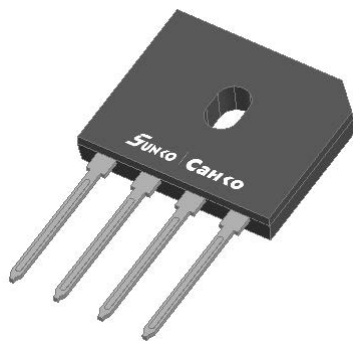


High Efficient Bridge Rectifiers



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:** GBU
Molding compound meets UL 94 V-0 flammability rating, -
- **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	HGBU1004
Device marking code				HGBU1004
Maximum Repetitive Peak Reverse Voltage		VRRM	V	400
Maximum RMS Voltage		VRMS	V	280
Maximum DC blocking Voltage		VDC	V	400
Average rectified output current @60Hz half sine wave, R-load	With heatsink T _c =100°C	I _O	A	10.0
	Without heatsink T _a =25°C			3.2
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, T _j =25°C		I _{FSM}	A	150
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T _j =25°C				300
Current squared time @1ms≤t≤8.3ms T _j =25°C, Rating of per diode		I ² t	A ² S	93
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		Tor	kg·cm	8

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	HGBU1004
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =5.0A	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
Maximum reverse recovery time	T _{RR}	ns	I _F =0.5A, I _R =1.0A, I _{RR} =0.25A	50

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

PARAMETER		SYMBOL	UNIT	HGBU1004
Thermal Resistance	Between junction and ambient, Without heatsink	R _{θJ-A}	°C/W	20
	Between junction and case, With heatsink	R _{θJ-C}		2

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

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
HGBU1004	B1	Approximate 3.96	20	1000	2000	TUBE

■ Characteristics (Typical)

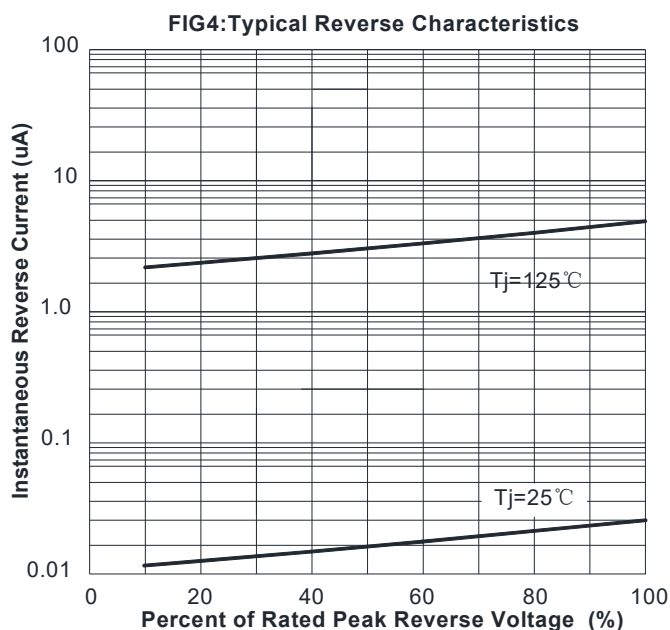
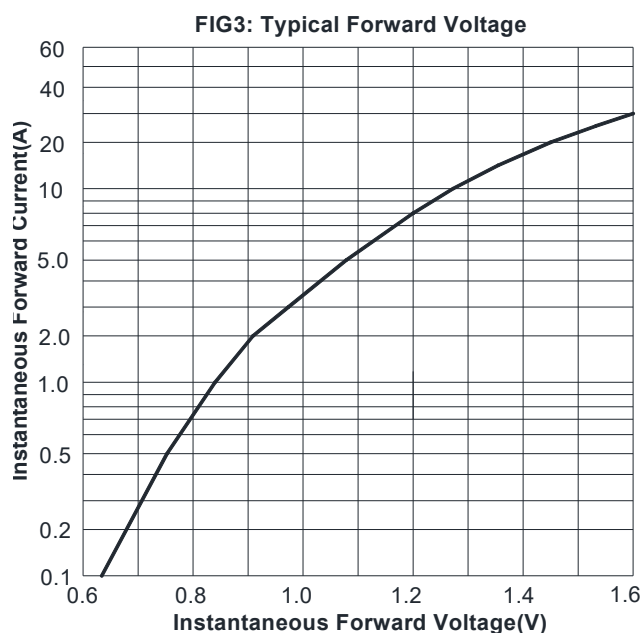
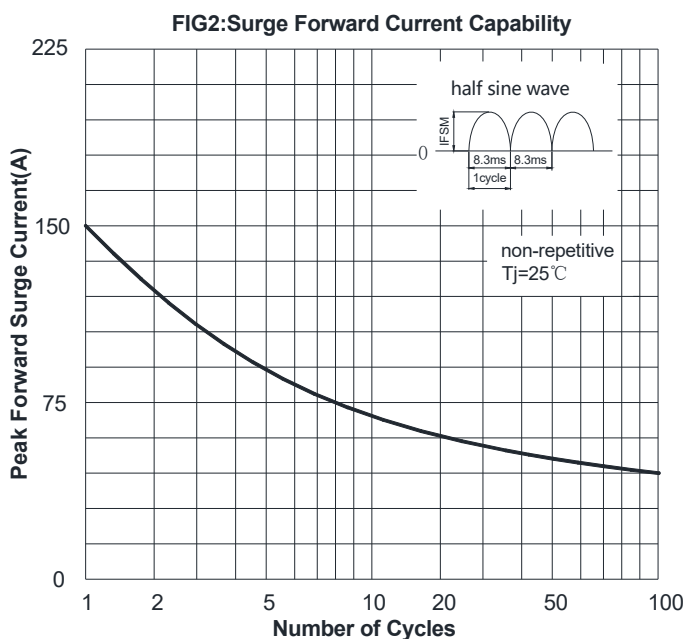
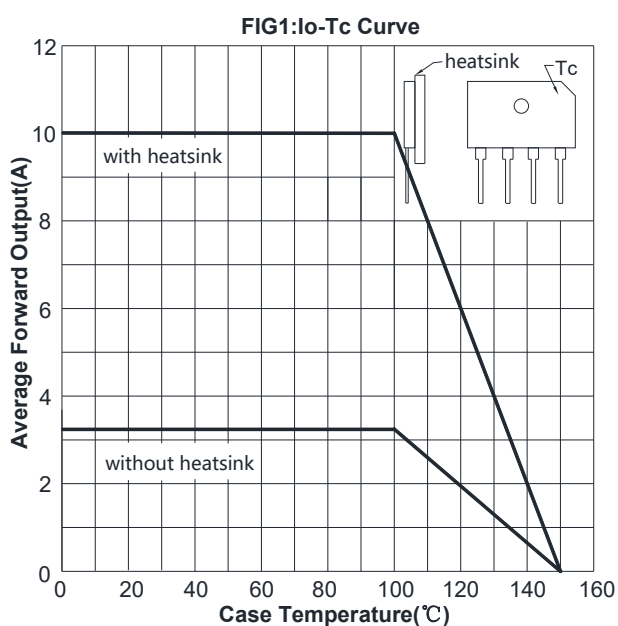
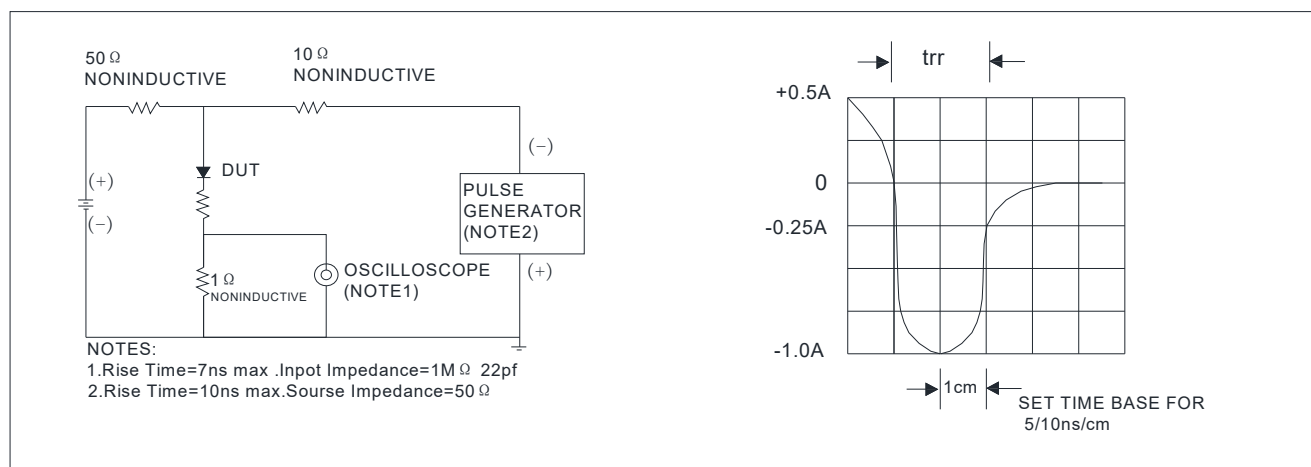
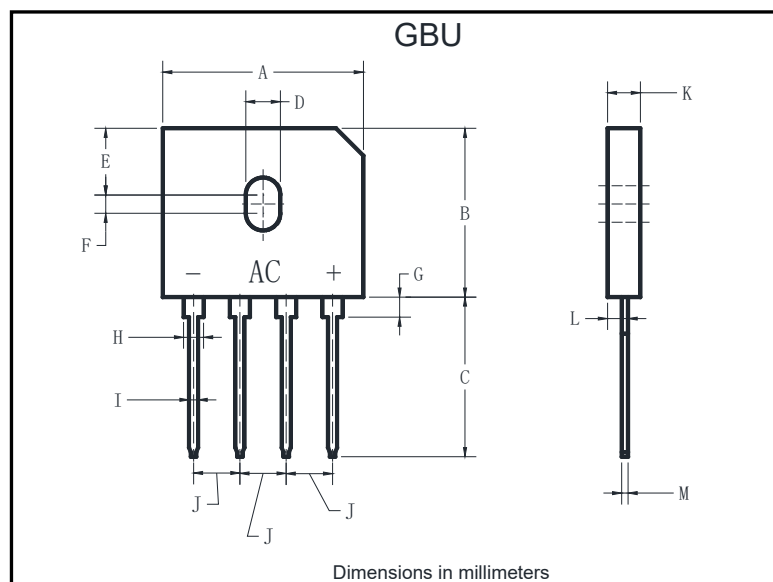


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



■ Outline Dimensions



GBU		
Dim	Min	Max
A	21.80	22.30
B	18.30	18.80
C	17.50	18.00
D	3.50	4.10
E	7.40	7.90
F	1.65	2.16
G	1.91	2.54
H	2.06	2.54
I	1.02	1.27
J	4.83	5.33
K	3.30	3.56
L	2.40	2.66
M	0.46	0.56

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