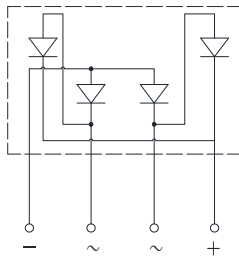
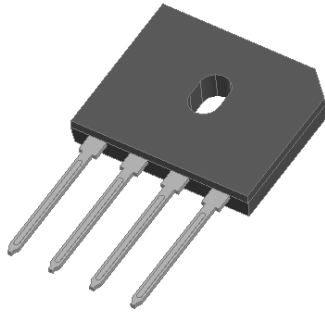


## Super Fast Recovery Bridge Rectifiers



### 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:** GBU  
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 (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	EGBU2506	
Device marking code			EGBU2506	
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 $T_c = 95^\circ\text{C}$	$I_o$	A	25.0
	Without heatsink $T_a = 25^\circ\text{C}$			3.0
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_j = 25^\circ\text{C}$	$I_{FSM}$	A	220	
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_j = 25^\circ\text{C}$			440	
Current squared time @1ms ≤ t ≤ 8.3ms $T_j = 25^\circ\text{C}$ , Rating of per diode	$I^2t$	A <sup>2</sup> S	201	
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	



# EGBU2506

## ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	EGBU2506
Maximum reverse recovery time	T <sub>RR</sub>	ns	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>RR</sub> =0.25A	35
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =12.5A	2.0
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	μA	T <sub>j</sub> =25°C	5
			T <sub>j</sub> =125°C	100
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	90

## ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

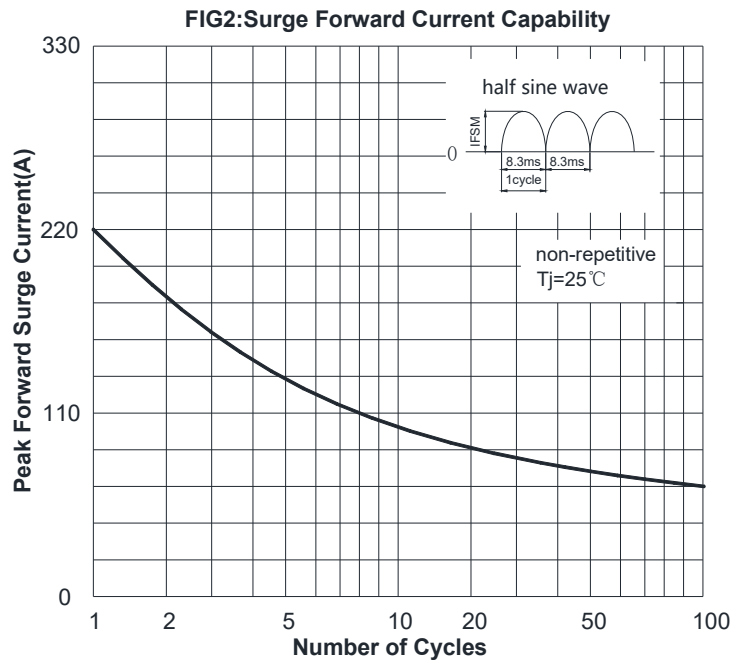
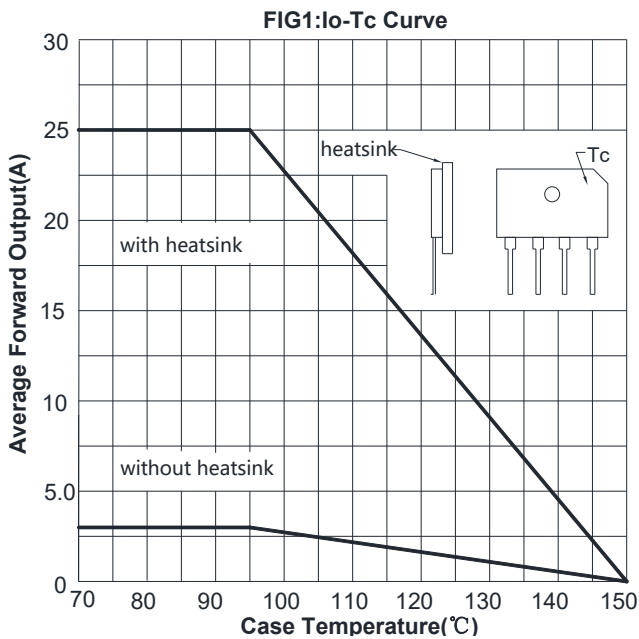
PARAMETER		SYMBOL	UNIT	EGBU2506
Thermal Resistance	Between junction and ambient, Without heatsink	R <sub>θJ-A</sub>	°C/W	20.0
	Between junction and case, With heatsink	R <sub>θJ-C</sub>		1.5

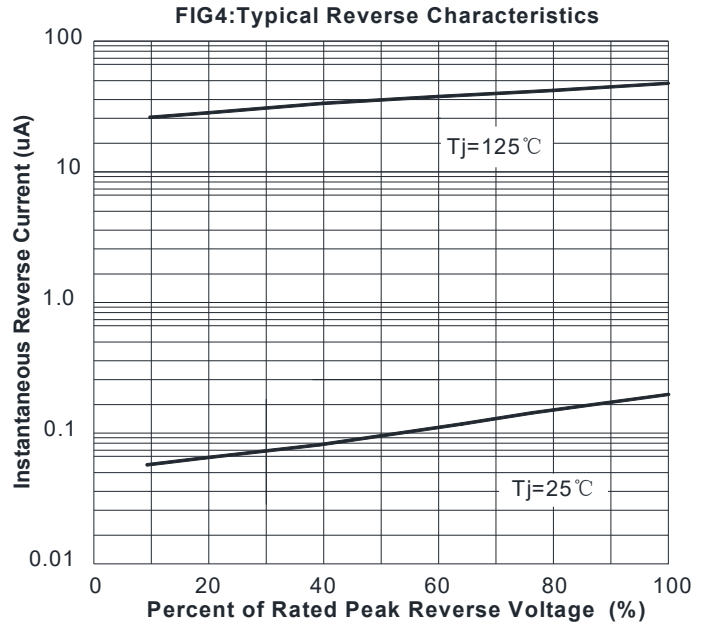
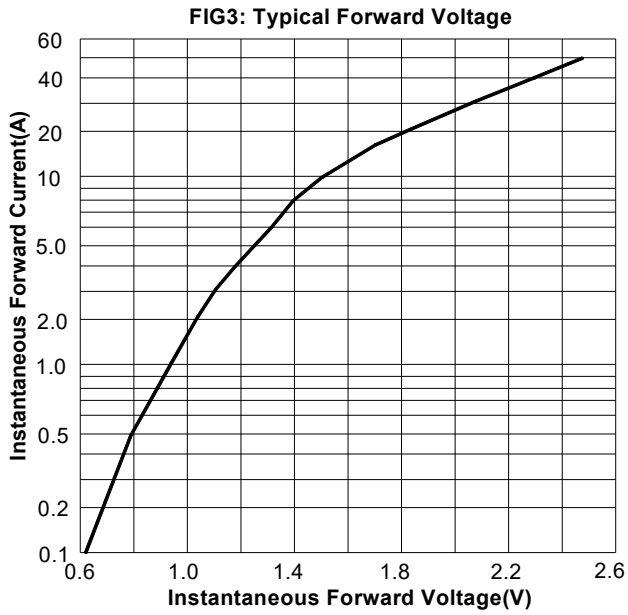
Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

## ■ Ordering Information (Example)

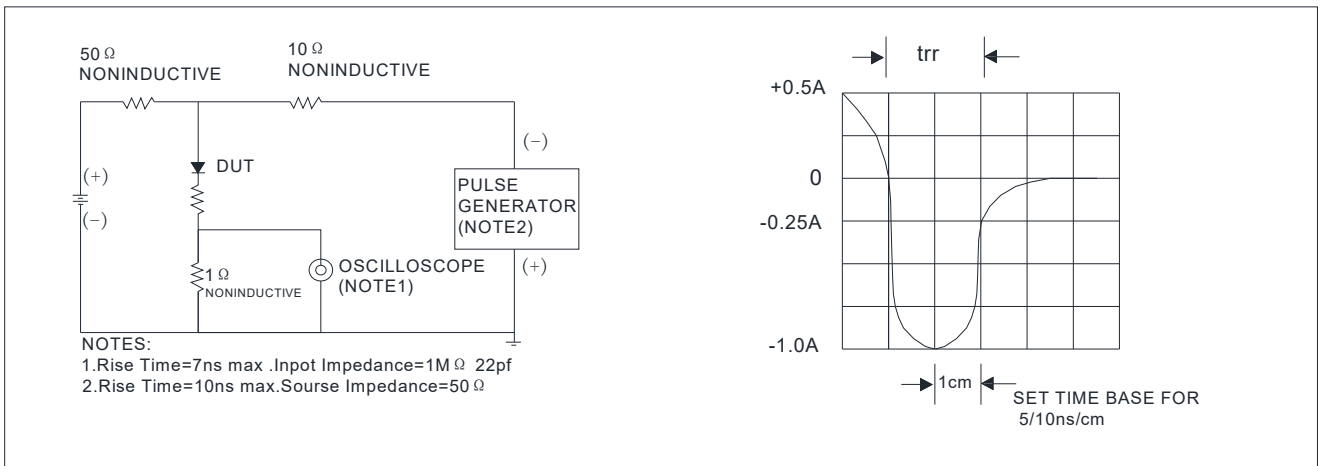
PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
EGBU2506	B1	Approximate 3.97	20	1000	2000	TUBE

## ■ Characteristics (Typical)

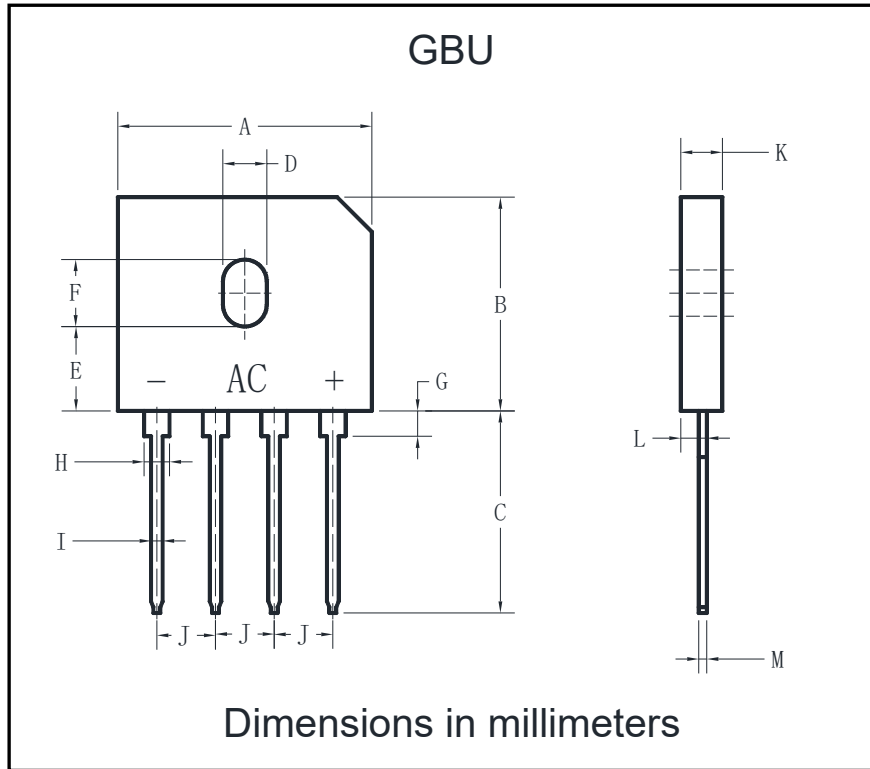




**FIG.5: Diagram of circuit and Testing wave form of reverse recovery time**



## ■ Outline Dimensions



GBU		
Dim	Min	Max
A	21.80	22.30
B	18.30	18.80
C	17.50	18.00
D	3.30	3.90
E	7.10	7.50
F	5.50	5.90
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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