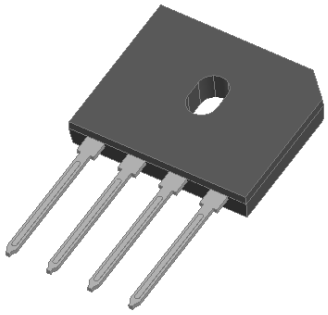
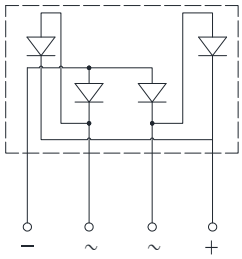
Super Fast Recovery Bridge Rectifiers





Features

- 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℃ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	EGBU3506
Device marking code				EGBU3506
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 Tc =85℃	I_O	A	35
	Without heatsink Ta =25℃			3.0
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃		I_{FSM}	A	350
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃				700
Current squared time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode		I^2t	A^2S	506
Storage temperature		Tstg	℃	-55 ~ +150
Junction temperature		Tj	℃	-55 ~ +150
Dielectric strength @ Terminals to case, AC 1 minute		Vdis	KV	2.5
Mounting torque @Recommend torque：5kg·cm		Tor	kg· cm	8

■Electrical Characteristics（T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	EGBU3506
Maximum reverse recovery time	T_{RR}	ns	I_F=0.5A,I_R=1.0A, I_{RR}=0.25A	35
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=17.5A	2.0
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	Tj =25℃	5
			Tj =125℃	100
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	175

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	EGBU3506
Thermal Resistance	Between junction and ambient, Without heatsink	$R_{\theta J-A}$	℃/W	18.0
	Between junction and case, With heatsink	$R_{\theta J-C}$		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
EGBU3506	B1	Approximate 3.97	20	1000	2000	TUBE

■ Characteristics (Typical)

FIG1:Io-Tc Curve

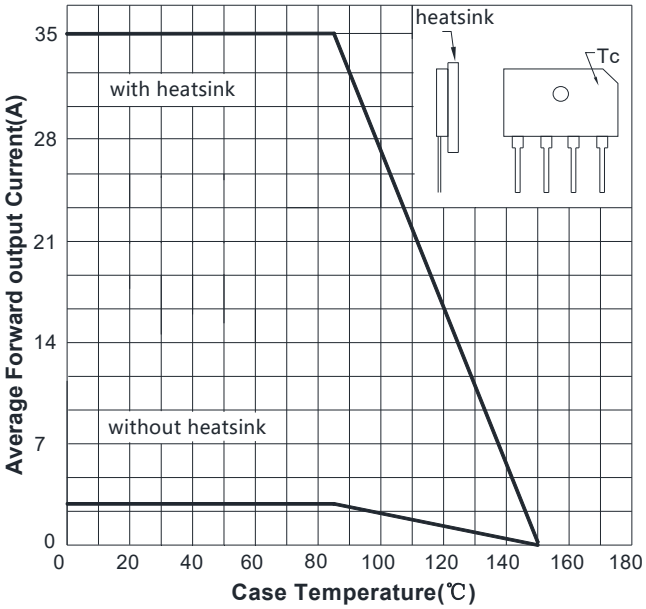


FIG2:Surge Forward Current Capability

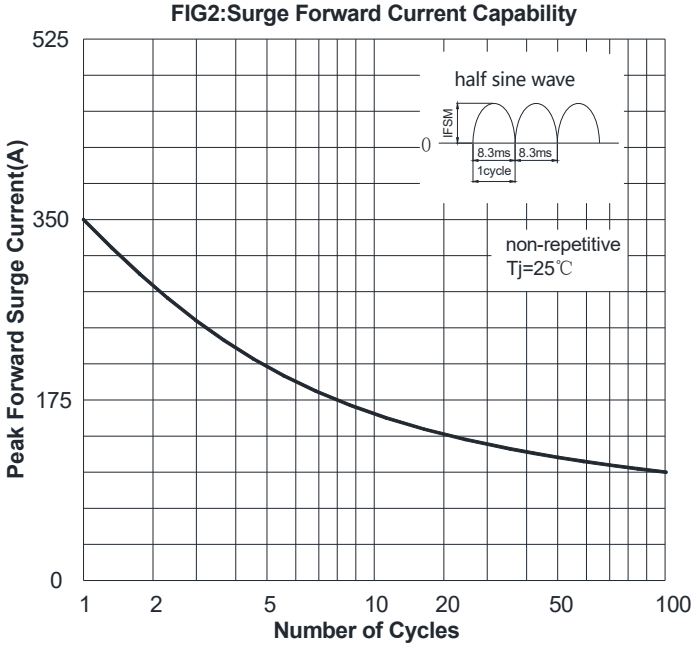


FIG3: Typical Forward Voltage

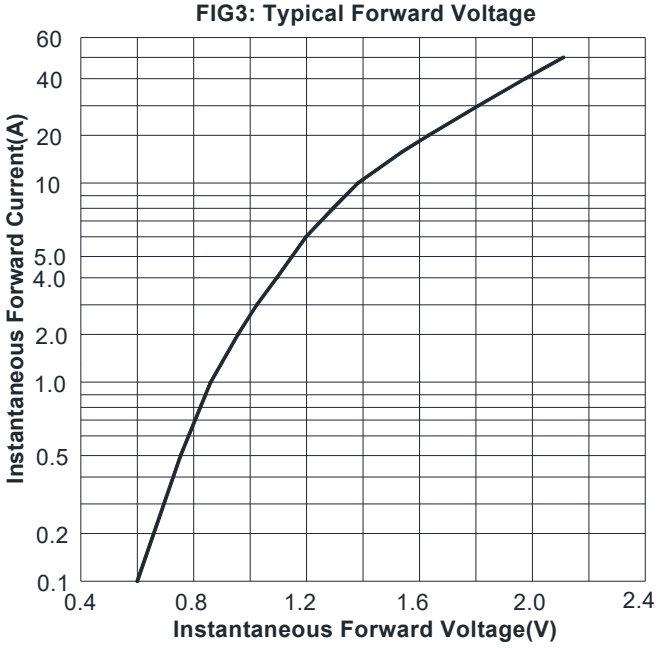


FIG4:Typical Reverse Characteristics

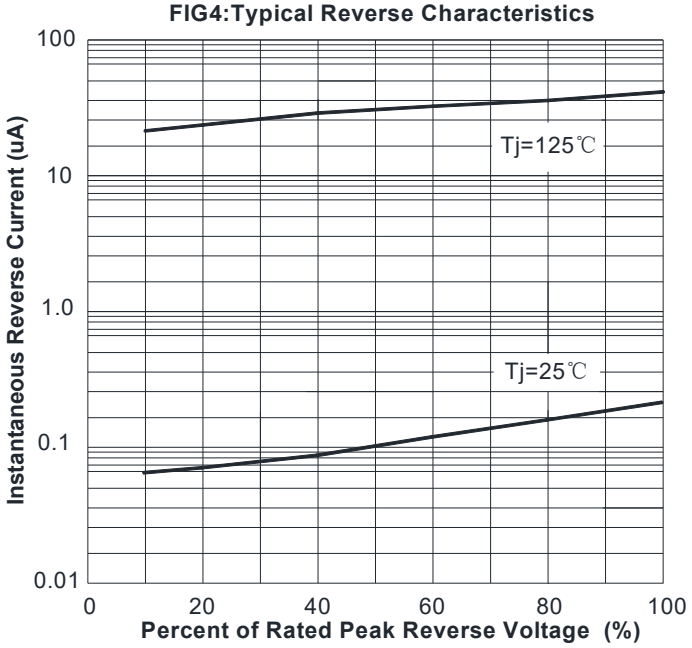
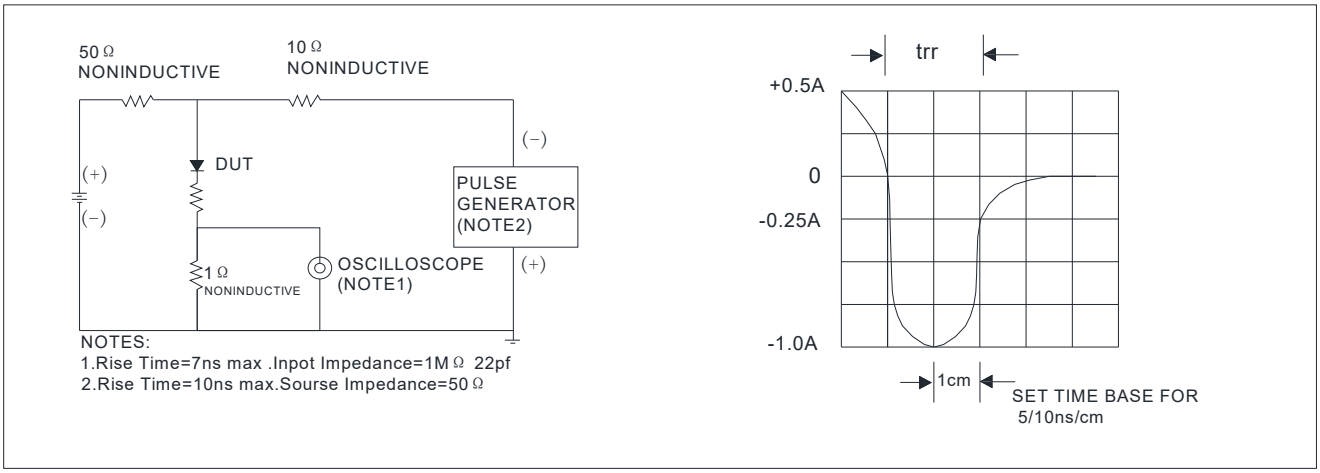
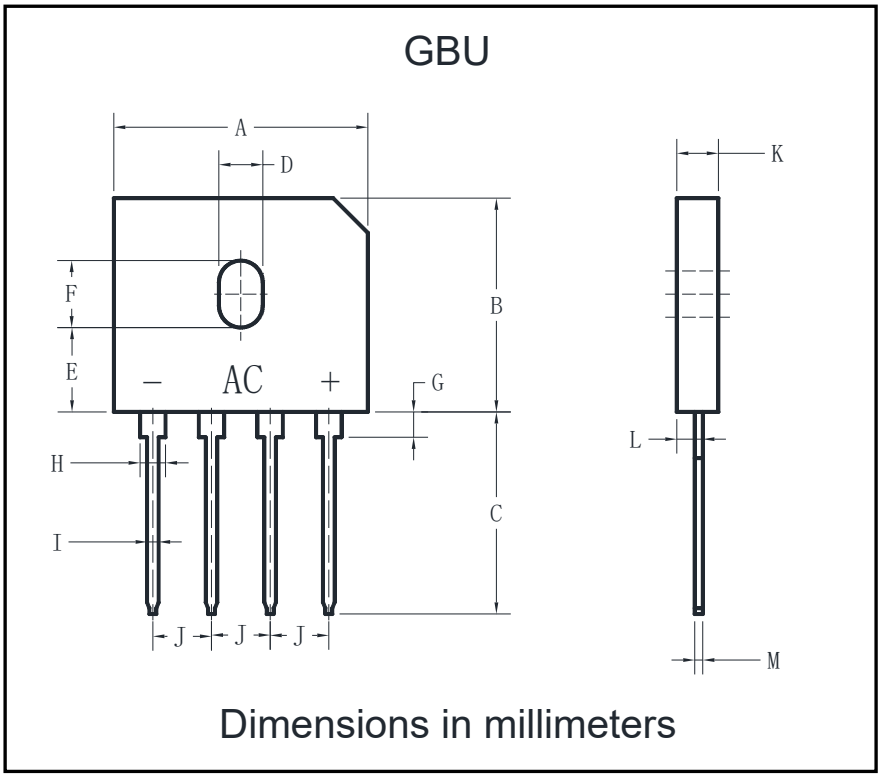


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



■ Outline Dimensions



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

Notice

All products, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise. Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in STARSEA's terms and conditions of sale for such products, STARSEA assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of STARSEA products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.