

■ 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	GBU4005A	GBU401A	GBU402A	GBU404A	GBU406A	GBU408A	GBU410A
Device marking code			GBU4005A	GBU401A	GBU402A	GBU404A	GBU406A	GBU408A	GBU410A
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	VRMS	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	VDC	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load	With heatsink Tc =135°C	IO	A	4.0					
	Without heatsink Ta =25°C			2.3					
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Tj=25°C	IFSM	A	150						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C			300						
Current squared time @1ms≤t≤8.3ms Tj=25°C, Rating of per diode	I ² t	A ² S	93.4						
Storage temperature	Tstg	°C	-55 ~ +150						
Junction temperature	Tj	°C	-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** ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GBU4005A	GBU401A	GBU402A	GBU404A	GBU406A	GBU408A	GBU410A
Maximum instantaneous forward voltage drop per diode	V_F	V	$I_{FM}=2.0A$				1.0			
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	$T_j=25^\circ\text{C}$				5			
			$T_j=125^\circ\text{C}$				100			
Typical junction capacitance	C_j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C				42			

■ **THERMAL CHARACTERISTICS** ($T_a=25^\circ\text{C}$ Unless otherwise specified)

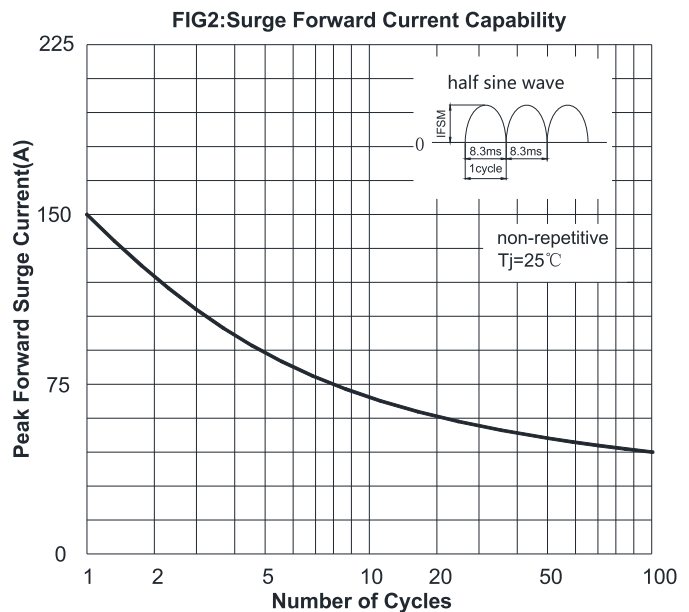
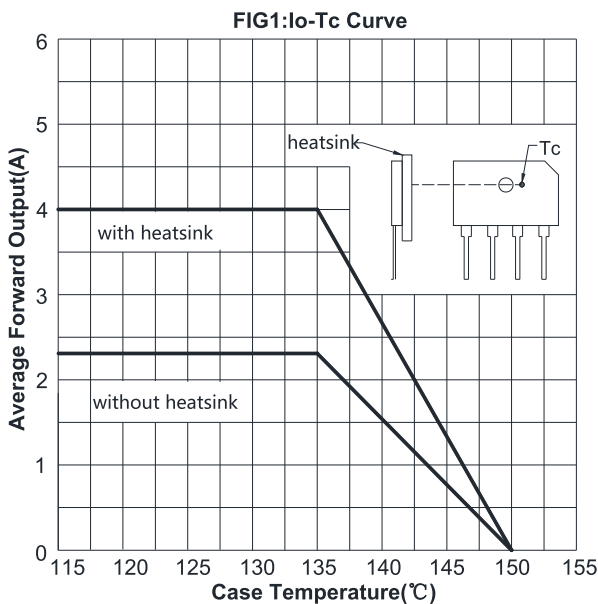
PARAMETER		SYMBOL	UNIT	GBU4005A	GBU401A	GBU402A	GBU404A	GBU406A	GBU408A	GBU410A
Typical Thermal Resistance	Between junction and ambient, Without heatsink	$R_{\theta J-A}$	$^\circ\text{C/W}$				25.0			
	Between junction and case, With heatsink	$R_{\theta J-C}$					2.0			

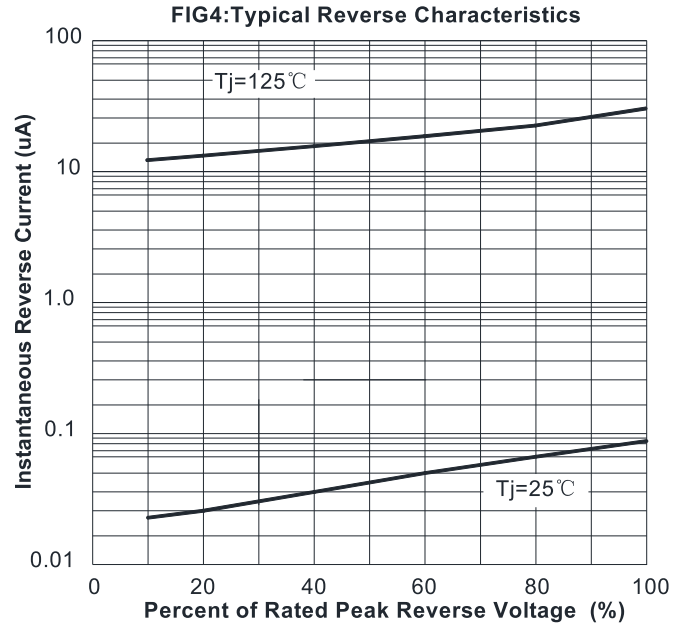
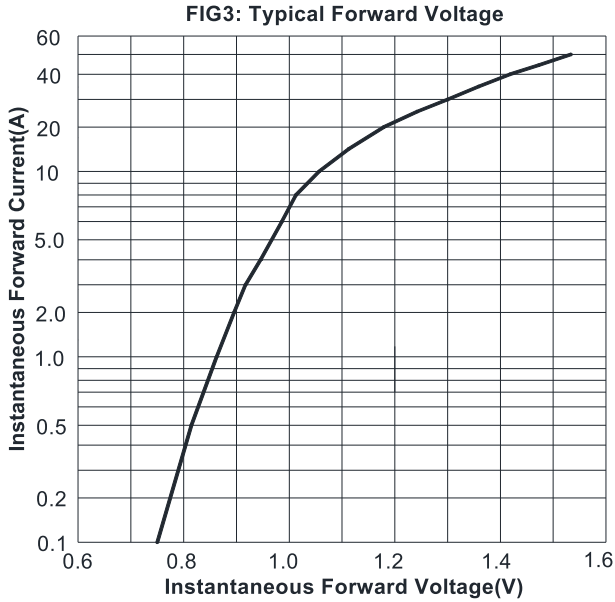
Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

■ **PACKAGING INFORMATION**

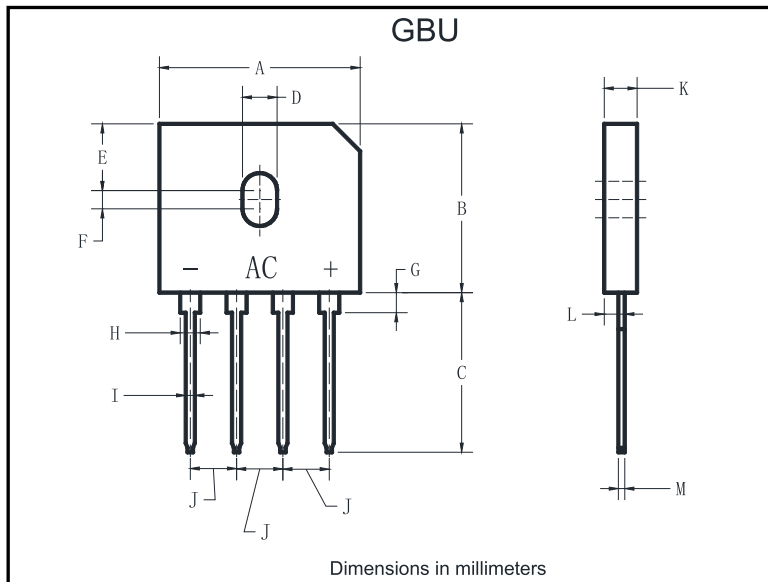
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GBU4005A ~ GBU410A	B1	Approximate 3.96	20	1000	2000	TUBE

■ **CHARACTERISTICS (TYPICAL)**





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