

GBU6005 THRU GBU610



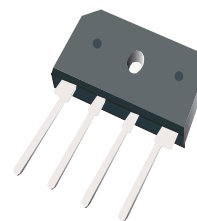
Glass Passivated Bridge Rectifiers

Reverse Voltage: 50 to 1000 Volts

Forward Current: 6.0 Ampere

RoHS Device

Halogen Free

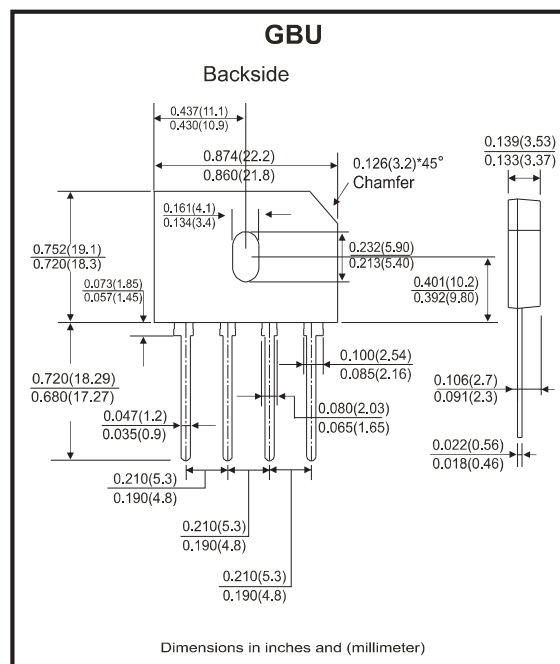


Features

- Surge overload rating -175 amperes peak.
- Ideal for printed circuit board.

Mechanical Data

- Epoxy: UL 94V-0 rate flame retardant.
- Case: Molded plastic, GBU.
- Mounting position: Any.
- Weight: 3.91 grams (approx.).



Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Parameter	Symbol	GBU 6005	GBU 601	GBU 602	GBU 604	GBU 606	GBU 608	GBU 610	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward (With heatsink Note2) Rectified Current @Tc=100°C (without heatsink)	I_{AV}	6.0 2.8							A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method)	I_{FSM}	175							A
Maximum Forward Voltage at 3.0A DC	V_F	1.0							V
Maximum DC Reverse Current @Tj=25°C At Rate DC Blocking Voltage @Tj=125°C	I_R	10.0 500							μA
$I^2 T$ Rating for Fusing(t<8.3ms)	$I^2 t$	127							A ² s
Typical Junction Capacitance Per Element (Note 1)	C_J	50							pF
Typical Thermal Resistance	$R_{\theta JC}$	2.2							°C/W
Operating Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Device mounted on 75mm*75mm*1.6mm Cu plate heatsink.

Company reserves the right to improve product design , functions and reliability without notice.

Rev:1.0

Rating and Characteristics Curves

Fig.1 - Forward Current Derating Curve

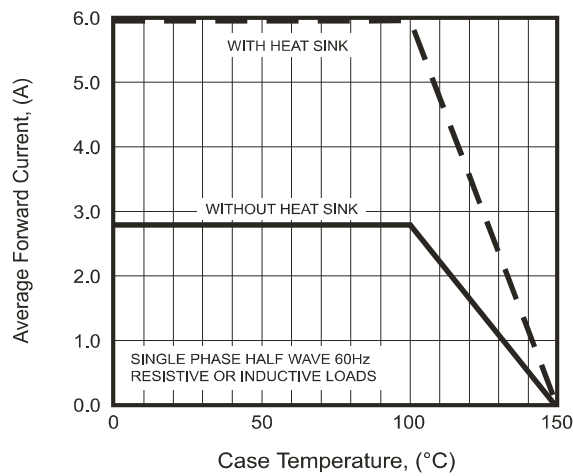


Fig.2 - Typical Forward Characteristics

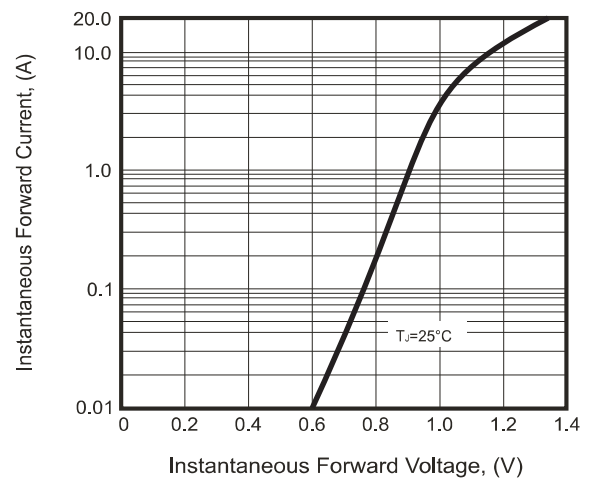


Fig.3 - Maximum Non-Repetitive Surge Current

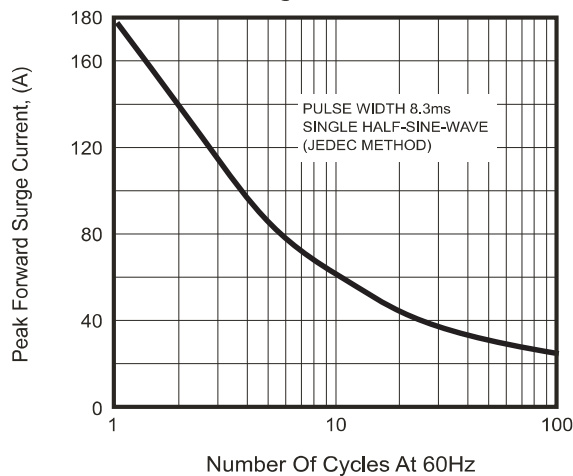


Fig.4 - Typical Junction Capacitance

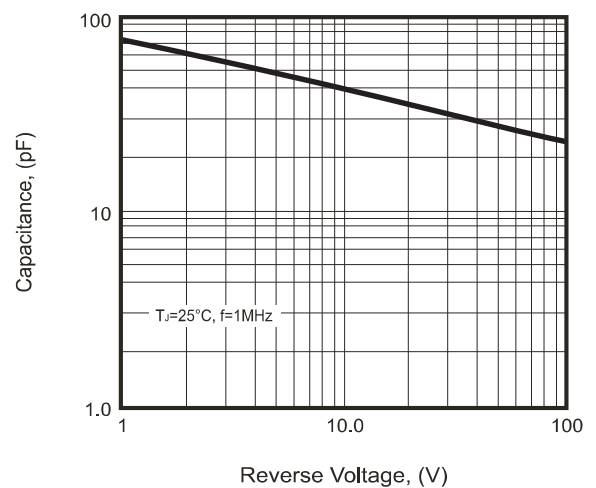
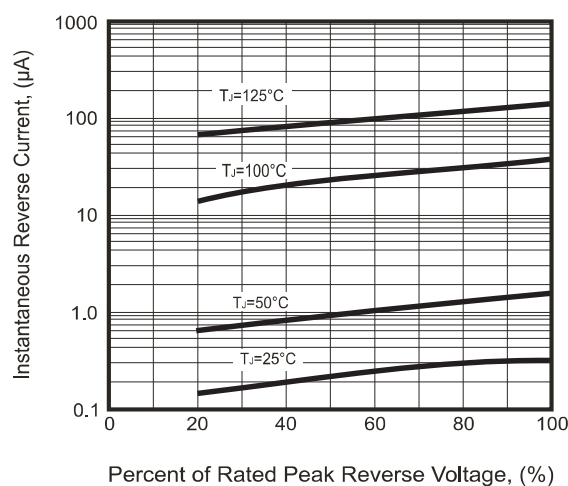
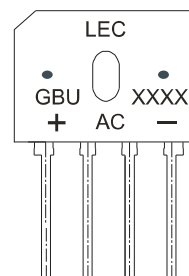


Fig.5 - Typical Reverse Characteristics



Marking Code

Part Number	Marking code
GBU6005	GBU6005
GBU601	GBU601
GBU602	GBU602
GBU604	GBU604
GBU606	GBU606
GBU608	GBU608
GBU610	GBU610



XXX / XXXX = Product type marking code
LEC = Longmacro Logo

Standard Packaging

Case Type	BULK PACK	
	BOX (pcs)	Carton (pcs)
GBU	250	3,000