GBU4005 THRU GBU410

BRIDGE RECTIFIERS

FEATURES

- UL Recognized File #E469616
- Glass passivated chip junction
- Reliable low cost construction utilizing molded plastic technique
- Ideal for printed circuit board
- Low forward voltage drop
- Low reverse leakage current
- High surge current capability

MECHANICAL DATA

Case: Molded plastic, GBU

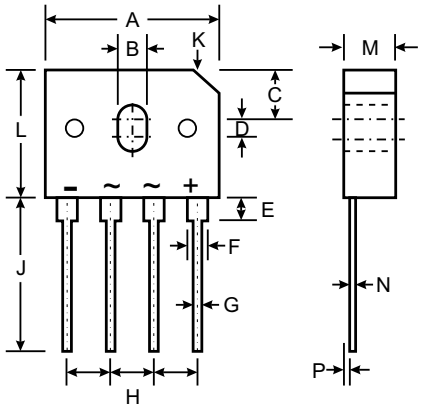
Epoxy: UL 94V-O rate flame retardant

Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed

Mounting position: Any

Weight: 0.15ounce, 4.0gram

GBU



Dim	Min	Max
A	21.8	22.3
B	3.5	4.1
C	7.4	7.9
D	1.65	2.16
E	2.25	2.75
F	2.05	2.3
G	1.02	1.27
H	4.83	5.33
J	17.5	18.0
K	4.2 X 45°	
L	18.3	18.8
M	3.30	3.56
N	0.46	0.56
P	0.76	1.0

Dimensions in millimeters

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60H_Z, resistive or inductive load.
For capacitive load, derate current by 20%.

	Symbols	*GBU4005*	*GBU401*	*GBU402*	*GBU404*	*GBU406*	*GBU408*	*GBU410*	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	**Volts**
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	**Volts**
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	**Volts**
Maximum Average Forward T_C=100℃(Note 1) **Rectified Current at** T_A= 40℃(Note 2)	$I_{(AV)}$	4.0 3.0							**Amp**
Peak Forward Surge Current, **8.3ms single half-sine-wave** **superimposed on rated load (JEDEC method)**	I_{FSM}	80							**Amp**
Maximum Forward Voltage **at 4.0A DC and 25℃**	V_F	1.0							**Volts**
Maximum Reverse Current at T_A=25℃ **at Rated DC Blocking Voltage** T_A=125℃	I_R	5.0 500							**uAmp**
Typical Junction Capacitance (Note 3)	C_J	100				45			**pF**
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	22							**℃/W**
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	4.2							**℃/W**
Operating and Storage Temperature Range	T_J, Tstg	-55 to +150							**℃**

NOTES:

1- Unit case mounted on 1.6 x 1.6 x 0.06" thick (4.0 x4.0 x 0.15cm) Al. Plate

2- Units mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads and 0.375" (9.5mm) lead length

3- Measured at 1 MH_Z and applied reverse voltage of 4.0 VDC.

4- Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

Characteristic Curves (T_A=25 ℃ unless otherwise noted)

Fig. 1 — Derating Curve Output Rectified Current

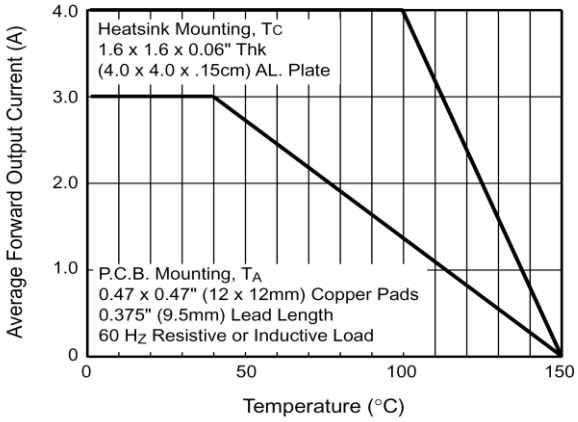


Fig. 2 — Maximum Non-Repetitive Peak Forward Surge Current Per Leg

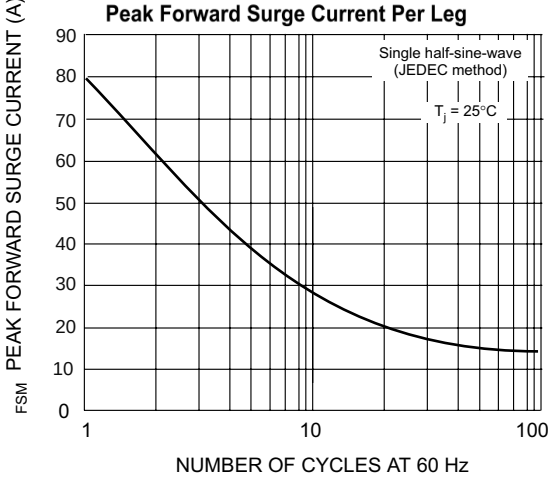


Fig. 3 — Typical Forward Characteristics Per Leg

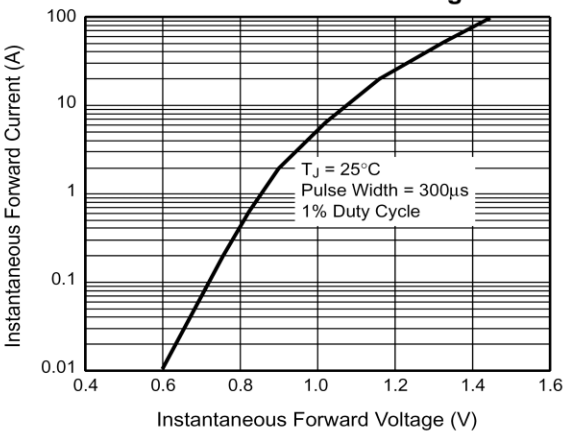


Fig. 4 — Typical Reverse Leakage Characteristics Per Leg

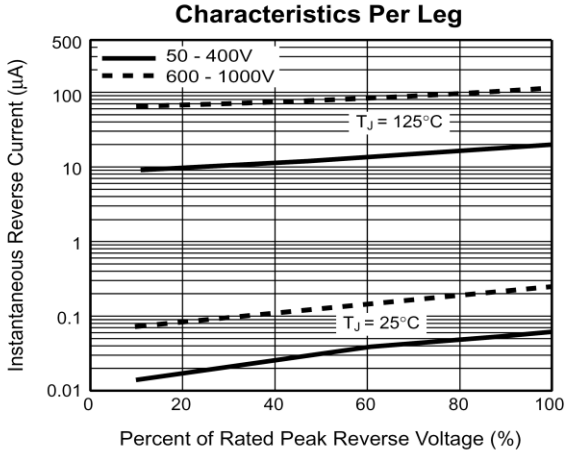


Fig. 5 — Typical Junction Capacitance Per Leg

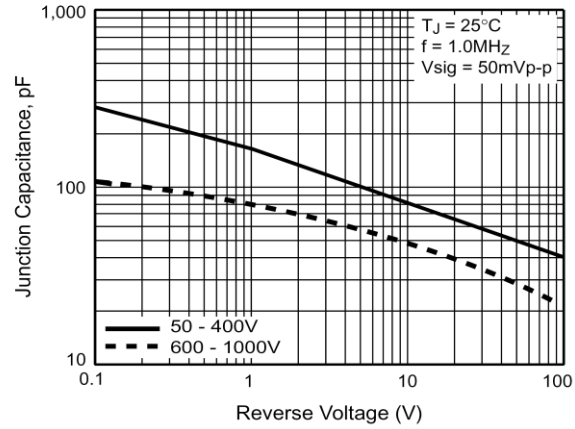


Fig. 6 — Typical Transient Thermal Impedance