GBU4005 thru GBU410

Bridge Rectifiers

Features

- Reliable low cost construction utilizing molded plastic technique
- Glass passivated chip
- Low forward voltage drop
- High surge current capability
- High temperature solding guaranteed: 260℃/10 seconds at terminals

GBU

Mechanical Date

- **Case:** Molded plastic, GBU
- **Epoxy:** UL 94V-O rate flame retardant
- **Terminals:** Leads solderable per MIL-STD-202, method 208 guaranteed
- **Mounting Position:** Any

Major Ratings and Characteristics

I_O	**4.0 A**
V_{RRM}	**50 V to 1000 V**
I_{FSM}	**120 A**
V_F	**1.05 V**
T_j max.	**150 °C**

Maximum Ratings & Thermal Characteristics

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

Items	Symbols	GBU 4005	GBU 401	GBU 402	GBU 404	GBU 406	GBU 408	GBU 410	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum Average Rectified Output Current With heatsink Tc=108℃ Without heatsink Ta= 25℃	I_O	4 2.3							A
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	120							A
Current Squared Time	I^2t	60							A^2S
Dielectric Strength	V_{dis}	2							KV
Mounting Torque	T_{or}	8							kg·cm
Typical thermal resistance per leg	$R_{\theta JA}$	23							℃/ W
Typical thermal resistance per leg	$R_{\theta JC}$	5.5							℃/ W
Operating junction temperature range	T_J	–55 to +150							℃
Storage temperature range	T_{STG}	–55 to +150							℃

Electrical Characteristics

(T_A = 25 °C unless otherwise noted)

Items	Test conditions		Symbol	Min	Type	Max	UNIT
Instantaneous forward voltage	I_F = 2.0A		V_F	-	-	1.05	V
Reverse current	V_R=V_{RRM}	T_j=25℃	I_R	-	-	10	μA

Typical Characteristics Curves

(T_A=25℃ unless otherwise noted)

Fig.1 Forward Current Derating Curve

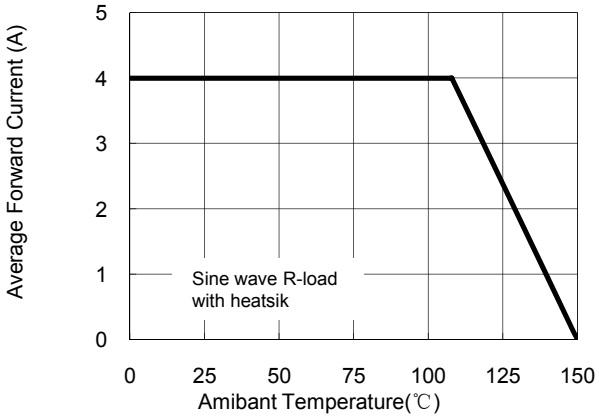


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

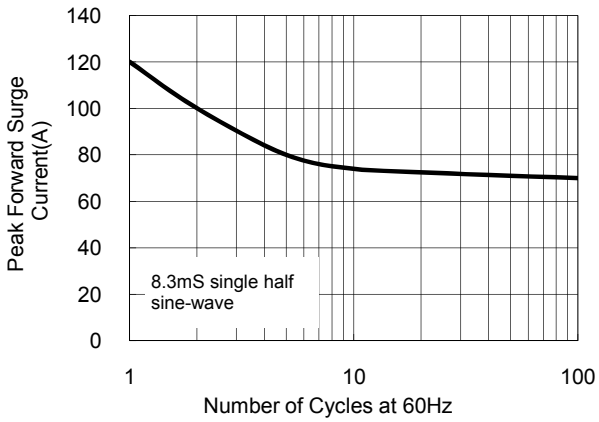


Fig.3 Typical Instantaneous Forward Characteristics

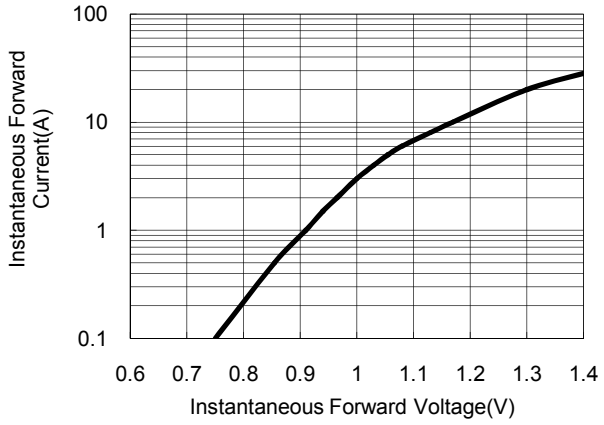
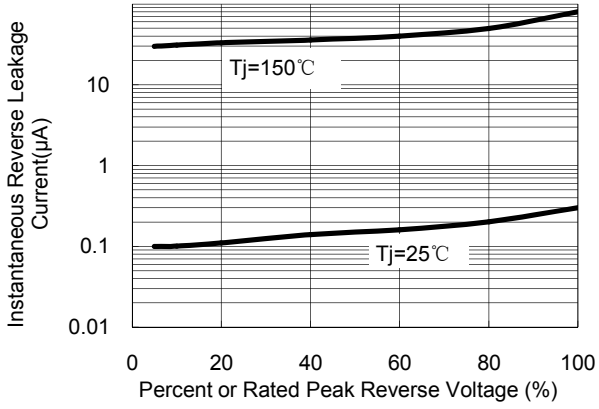
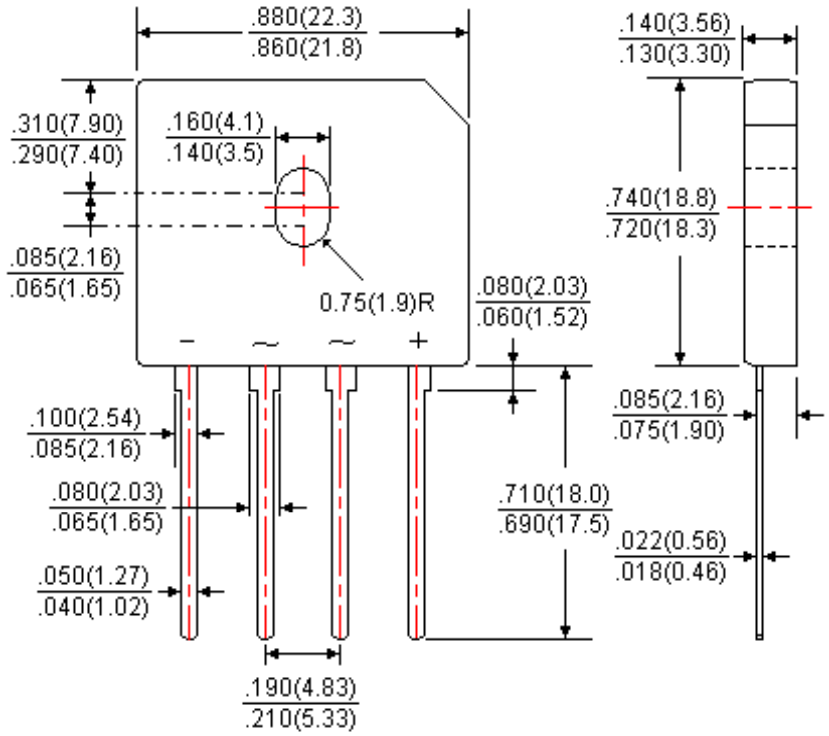


Fig.4 Typical Reverse Leakage Characteristics



Package Outline

GBU



Uint: in inches (millimeters)