

Features

- Reliable low cost construction utilizing molded plastic technique
- Glass passivated chip
- Low forward voltage drop
- High surge current capability
- High temperature soldering guaranteed:
260°C/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	8.0 A
V_{RRM}	50 V to 1000 V
I_{FSM}	150 A
V_F	1.1 V
$T_j \text{ max.}$	150 °C

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

Items	Symbols	GBU 8005	GBU 801	GBU 802	GBU 804	GBU 806	GBU 808	GBU 810	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum Average Rectified Output Current With heatsink $T_c=82^\circ\text{C}$ Without heatsink $T_a=25^\circ\text{C}$	I_O	8 3.2							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	93							A ² S
Dielectric Strength	V_{dis}	2							KV
Mounting Torque	T_{or}	8							kg-cm
Typical thermal resistance per leg	$R_{\theta JA}$	25							°C/W
Typical thermal resistance per leg	$R_{\theta JC}$	2.3							°C/W
Operating junction temperature range	T_J	-55 to +150							°C
Storage temperature range	T_{STG}	-55 to +150							°C

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Items	Test conditions	Symbol	Min	Type	Max	UNIT
Instantaneous forward voltage	$I_F = 4.0\text{A}$	V_F	-	-	1.10	V
Reverse current	$V_R = V_{RRM}$ $T_J = 25^\circ\text{C}$	I_R	-	-	10	μA

Typical Characteristics Curves (T_A=25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

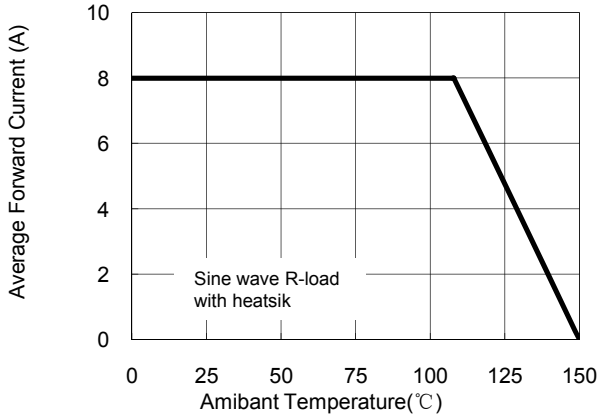


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

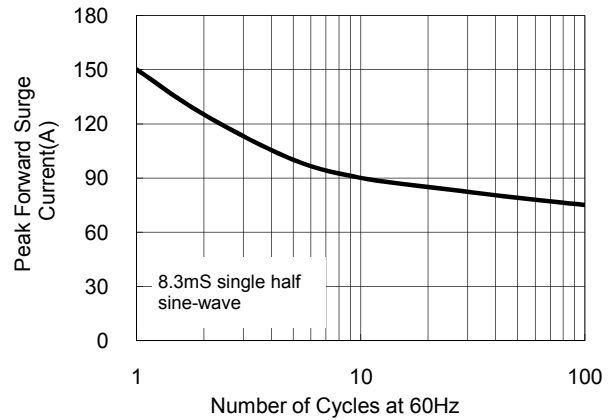


Fig.3 Typical Instantaneous Forward Characteristics

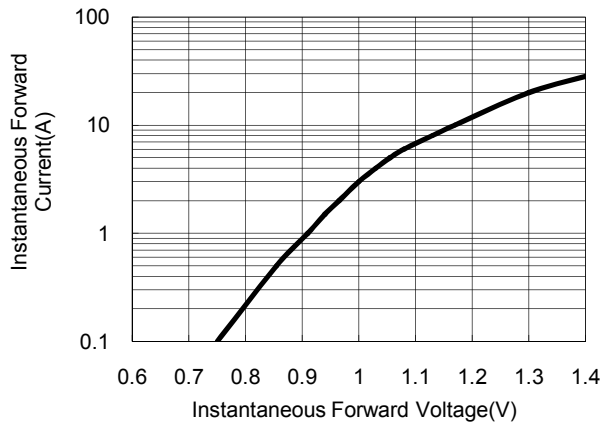


Fig.4 Typical Reverse Leakage Characteristics

