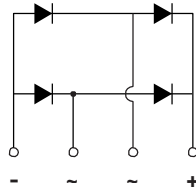
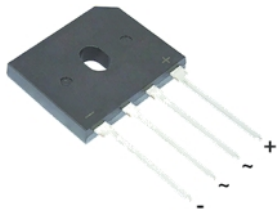


**GBU**



**Features**

- ROHS compliant
- Glass passivated chip
- High forward surge capability
- Meet MSL level 1, per J-STD-020  
LF maximum peak of 250 °C
- Solder dip 260 °C / 40S
- Component in accordance to ROHS 2002/95/EC and WEEE 2002/96/WC
- UL recognition, file number E342874



**Primary characteristics**

$I_{F(AV)}$	8.0A
$V_{RRM}$	200V to 1000V
$I_{FSM}$	200A
$I_{RM}$	5uA
$V_{FM}$ at $I_F=8A$	1.0V
$T_J$ max.	150 °C

**Applications**

Ideal for ac-to-dc bridge full wave rectification such as SMPS, home appliances, office equipment, industrial automation applications

**Mechanical data**

- Case: GBU
- Epoxy meets UL 94 V-0 flammability rating
- Terminals: Tin plated leads.
- Polarity: As marked.
- Mounting Torque: 10cm·kg (8.8 inches·lbs) max.
- Recommended Torque: 5.7 cm·kg (5 inches·lbs)

**Maximum rating (Ta=25°C unless otherwise noted)**

Parameter	Sym	GBU					Unit
		802	804	806	808	810	
Max. repetitive peak reverse voltage	$V_{RRM}$	200	400	600	800	1000	V
Max. RMS reverse voltage	$V_{RMS}$	140	280	420	560	700	V
Max. DC blocking voltage	$V_{DC}$	200	400	600	800	1000	V
Max. average forward current	$I_{F(AV)}$	8					A
Non-repetitive peak forward surge current 8.3ms single half-sine-wave	$I_{FSM}$	200					A
Rating for fusing, $1ms \leq t \leq 8.3ms$	$I^2t$	166					A <sup>2</sup> S
Max. instantaneous forward voltage drop per diode	$V_{FM}$	1.0 (8A)					V
Max. instantaneous reverse current at rated DC blocking voltage	$I_{RM}$	5					μA
		500					μA
Operating junction temperature	$T_J$	-55 ~ +150					°C
Storage temperature	$T_{STG}$	-55 ~ +150					°C
Thermal resistance junction to ambient (Note2)	$R_{J-A}$	21					°C/W
Thermal resistance junction to cover (Note3)	$R_{J-C}$	4					°C/W
Typical junction capacitance (Note1)	$C_J$	68					pF

**Notes**

- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (2) Units mounted in free air, no heatsink on PCB, 0.5" x 0.5" (12 mm x 12 mm) copper pads, 0.375" (9.5 mm) lead length
- (3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screws



Ordering information (Example)

PREFERRED	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
GBU806	3.857	45	20	Tube

Typical characteristics

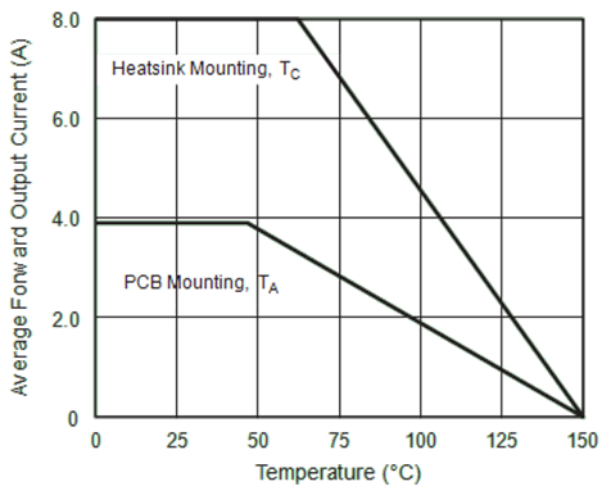
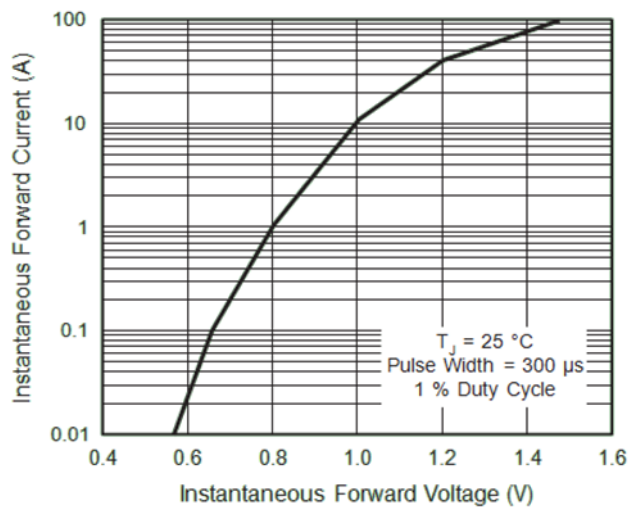
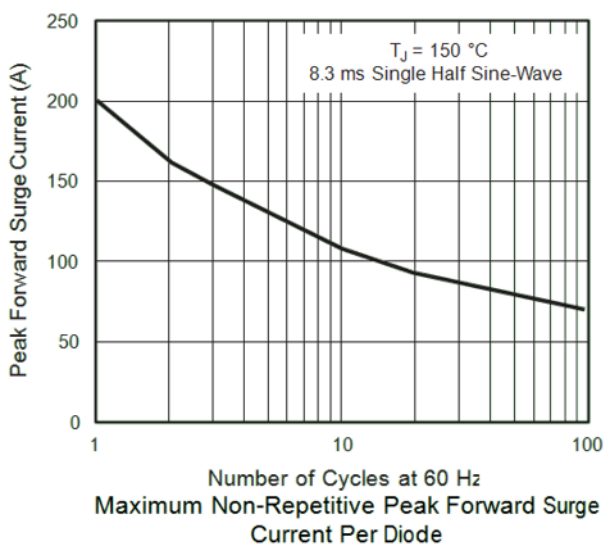


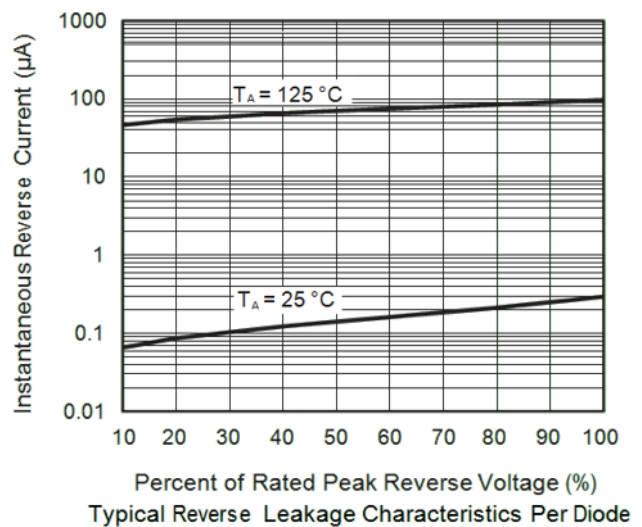
Fig. 1 - Derating Curve Output Rectified Current



Typical Forward Characteristics Per Diode

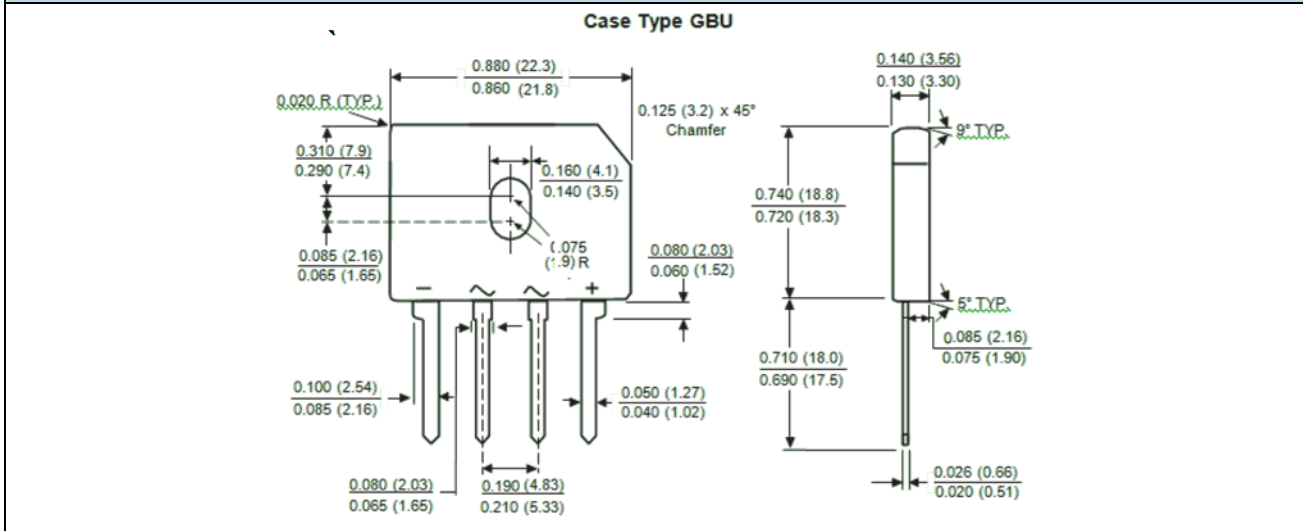


Maximum Non-Repetitive Peak Forward Surge Current Per Diode



Typical Reverse Leakage Characteristics Per Diode

**Package outline dimensions**



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