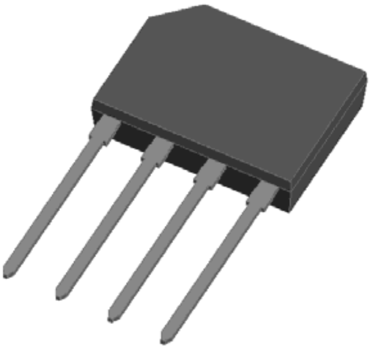
GBP8005 THRU GBP810

8A Bridge Rectifiers

Features

- Glass passivated chip junction
- Ideal for printed circuit boards
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

RoHS
COMPLIANT

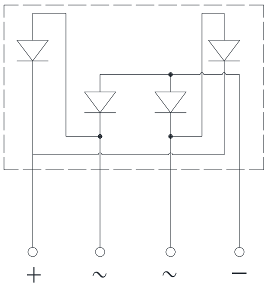


Typical Applications

General purpose use in AC/DC bridge full wave rectification for monitor, TV, printer, power supply, switching mode power supply, adapter, audio equipment, and home appliances applications.

Mechanical Data

- **Package**: GBP
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body



■Maximum Ratings (T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	GBP8005	GBP801	GBP802	GBP804	GBP806	GBP808	GBP810
Device marking code				GBP8005	GBP801	GBP802	GBP804	GBP806	GBP808	GBP810
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage		V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage		V_{DC}	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load	With heatsink T_C =130℃	I_O	A	8.0						
	Without heatsink T_a =25℃			1.8						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃		I_{FSM}	A	170						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃				340						
Current squared time @1ms≤t<8.3ms Tj=25℃，Rating of per diode		I^2t	A^2s	120						
Dielectric strength @ terminals to case, AC 1 minute		Vdis	KV	2						
Storage temperature		T_{stg}	℃	-55 ~ +150						
Junction temperature		T_j	℃	-55 ~ +150						

■Electrical Characteristics（T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GBP8005	GBP801	GBP802	GBP804	GBP806	GBP808	GBP810
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=4.0A	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	T_j=25℃	5						
			T_j=125℃	100						
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	48						

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	GBP8005	GBP801	GBP802	GBP804	GBP806	GBP808	GBP810
Thermal Resistance	Between junction and ambient, Without heatsink	RθJ-A	℃/W	45.0						
	Between junction and case, With heatsink	RθJ-C		1.5						

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

■ Characteristics (Typical)

FIG1:Io-Tc Curve

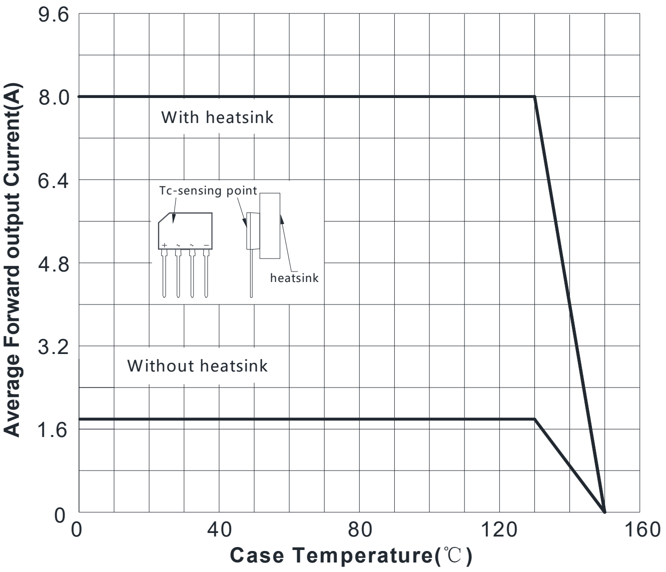


FIG2:Surge Forward Current Capability

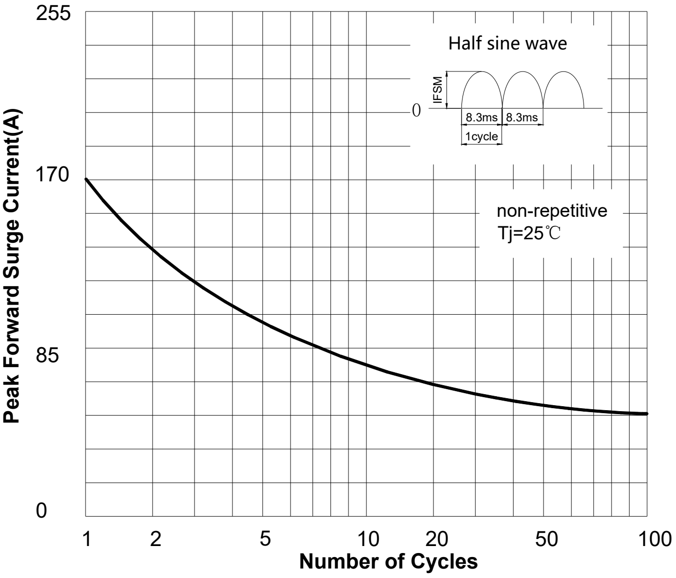


FIG3: Typical Forward Voltage

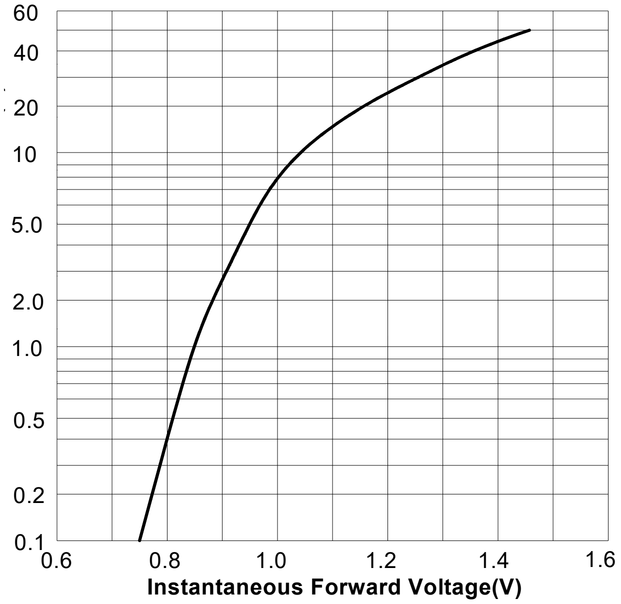
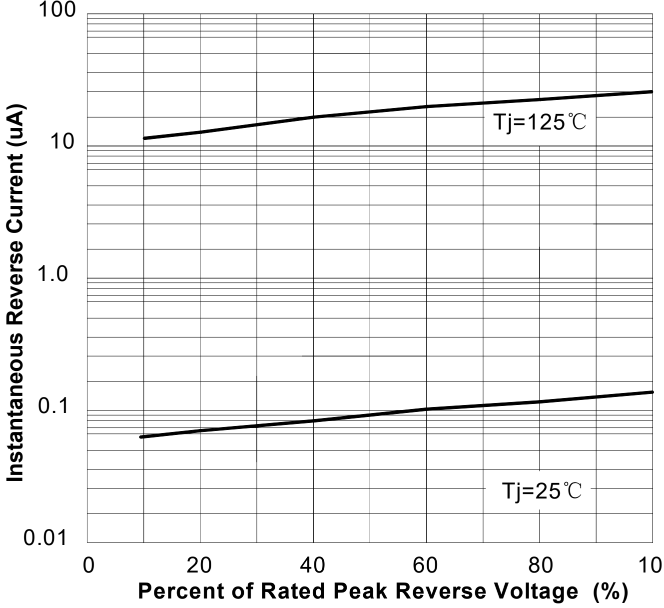
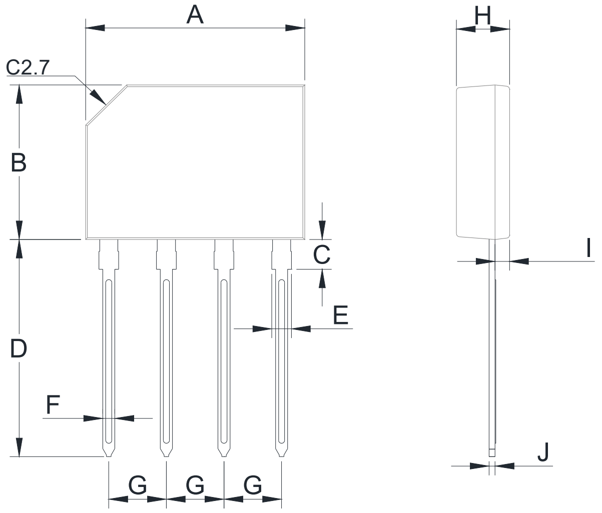


FIG4:Typical Reverse Characteristics



■ Outline Dimensions

GBP



Dimensions in millimeters

GBP		
Dim	Min	Max
A	14.25	14.75
B	10.10	10.60
C	1.80	2.20
D	14.25	14.73
E	1.22	1.42
F	0.76	0.86
G	3.70	3.90
H	3.35	3.65
I	0.80	1.10
J	0.35	0.55