



# GBP2005 THTU GBP210

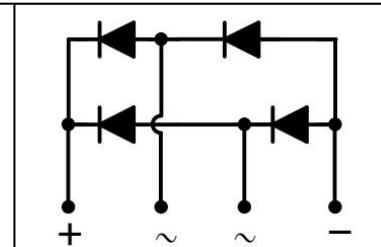
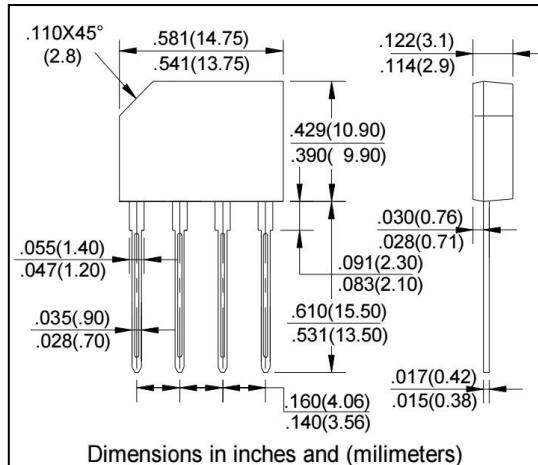
## 2.0A Single-Phase Silicon Bridge Rectifier

### ● Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0

### ● Mechanical Data

- Package: GBP, molded plastic
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting position: Any
- Marking: type number



### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Symbol	Parameter	GBP 2005	GBP 201	GBP 202	GBP 204	GBP 206	GBP 208	GBP 210	Unit
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
V <sub>RMS</sub>	Maximum RMS Reverse Voltage	35	70	140	280	420	560	700	V
V <sub>DC</sub>	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
I <sub>F(AV)</sub>	Average Rectified Output Current (Note 1)@TC=100°C					2.0			A
I <sub>FSM</sub>	Non-Repetitive Peak Forward Surge Current 8.3ms. Single half sine-wave superimposed on rated load(JEDEC Method)					45			A
I <sup>2</sup> t	I <sup>2</sup> t Rating for Fusing (t < 8.3ms)				8.4				A <sup>2</sup> s
V <sub>FM</sub>	Forward Voltage per element @IF=2.0A				1.1				V
I <sub>R</sub>	Peak Reverse Current @TA=25°C At Rated DC Blocking Voltage @TA=125°C				5	500			μA
R <sub>θJA</sub>	Typical Thermal Resistance per leg (Note 2)				33.5				°C/W
R <sub>θJL</sub>					12.5				°C/W
T <sub>J</sub>	Operating Junction Temperature				150				°C
T <sub>STG</sub>	Storage Temperature Range				-55 to+150				°C

Note:1. Mounted on glass epoxy PC board with 1.3mm<sup>2</sup> solder pad.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C..



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### Typical Performance Characteristics

Fig. 1 Forward Current Derating Curve

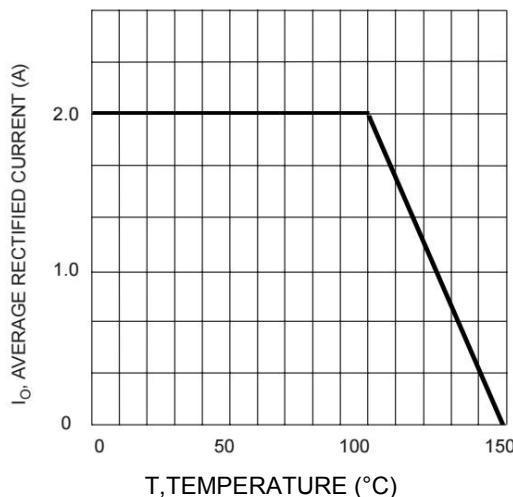


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

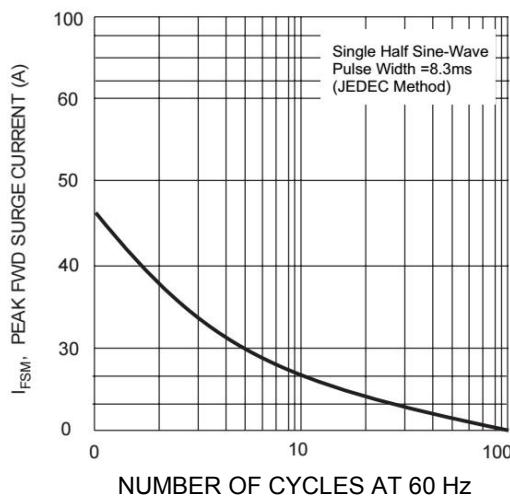


Fig. 2 Typical Fwd Characteristics

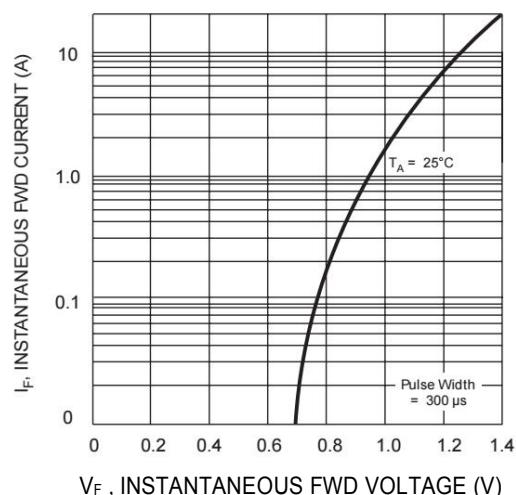


Fig. 4 Typical Junction Capacitance

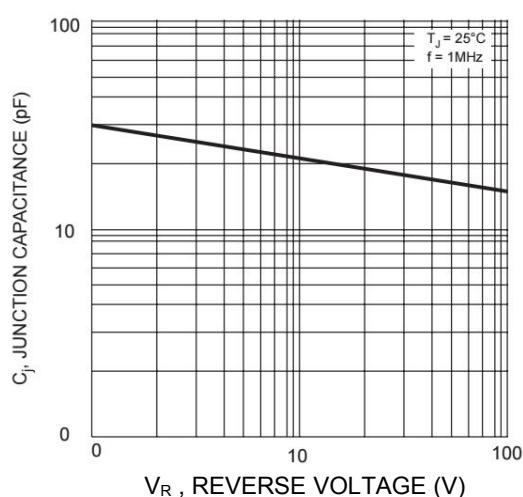


Fig. 5 Typical Reverse Characteristics (per element)

