

GBP3005G THTU GBP310G

3.0A 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%.



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Symbol	Parameter	GBP 3005G	GBP 301G	GBP 302G	GBP 304G	GBP 306G	GBP 308G	GBP 310G	Unit
V _{RRM}	Maximum Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
V _{RMS}	Maximum RMS Reverse Voltage	35	70	140	280	420	560	700	V
V _{DC}	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
I _{F(AV)}	Average Rectified Output Current (Note 1)@TC=100°C	3.0							A
I _{FSM}	Non-Repetitive Peak Forward Surge Current 8.3ms.Single half sine-wave superimposed on rated load(JEDEC Method)	80							A
l²t	I ² t Rating for Fusing (t < 8.3ms)	26.56							A ² s
V _{FM}	Forward Voltage per element @IF=3.0A	1.05							V
I _R	Peak Reverse Current @TA=25°C At Rated DC Blocking Voltage @TA=125°C	5 500							μA
R _{0JA}	Turical Thermal Desistence per lag (Note 2)	27							°C/W
R _{θJL}	Typical Thermal Resistance per leg (Note 2)	10							°C/W
TJ	Operating Junction Temperature	150							°C
T _{STG}	Storage Temperature Range	-55 to+150							°C

Note:1. Mounted on glass epoxy PC board with 1.3mm² solder pad.

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



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Fig. 3 Max Non-Repetitive Peak Fwd Surge Current









Fig. 4 Typical Junction Capacitance

