

Single Phase Bridge Rectifier

GBPC50 Series



Features:

- The glass passivation process offers improvements to reliability at high operating temperatures, moisture resistance capability and overall durability
- Integrally moulded heatsink provided very low thermal resistance for maximum heat dissipation
- Universal 4-way terminals; snap-on, wrap-around, solder or P.C. board mounting
- Surge overload rating 400A
- Terminals solderable per MIL-STD-202, Method 208
- Typical IR less than 0.2uA
- High temperature soldering guaranteed: 260°C/10 seconds/0.375" (9.5mm) lead lengths
- Isolated voltage from case to lead over 2,500V

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%.

Type Number	Symbol	-005	-02	-04	-10	Unit
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	200	400	1,000	V
Maximum RMS Voltage	V _{RMS}	35	140	280	700	
Maximum DC Blocking Voltage	V _{DC}	50	200	400	1,000	
Maximum Average Forward Rectified Current at TC = 55°C GBPC50	I(AV)	50				A
Peak Forward Surge Current, Single Sine-wave Superimposed on Rated Load (JEDEC method) GBPC50	I _{FSM}	400				
Maximum Instantaneous Forward Voltage Drop Per Element at Specified Current GBPC50 at 25A	V _F	1.1				V
Maximum DC Reverse Current at Rated DC Blocking Voltage Per Element	I _R	10				uA
Typical Thermal Resistance (Note 1)	RθJC	1.5				°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-50 to +150				°C

Note: 1. Thermal Resistance from Junction to Case

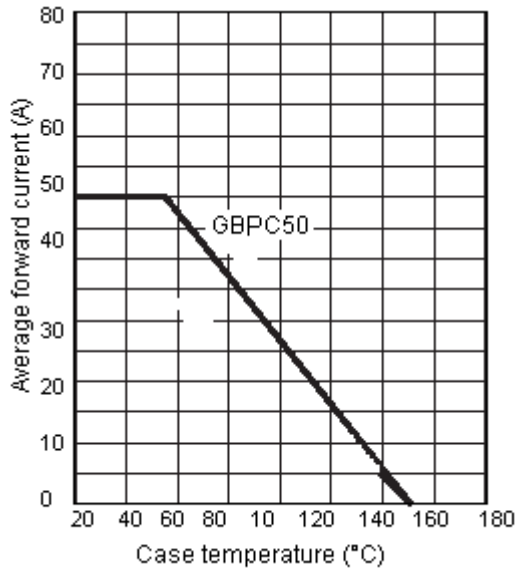
Single Phase Bridge Rectifier

GBPC50 Series

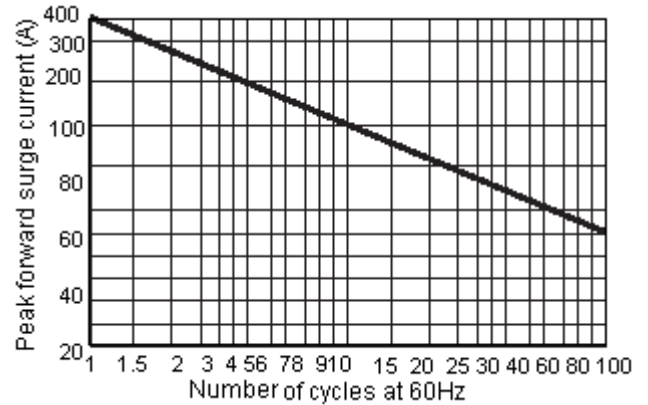


Ratings and Characteristic Curves

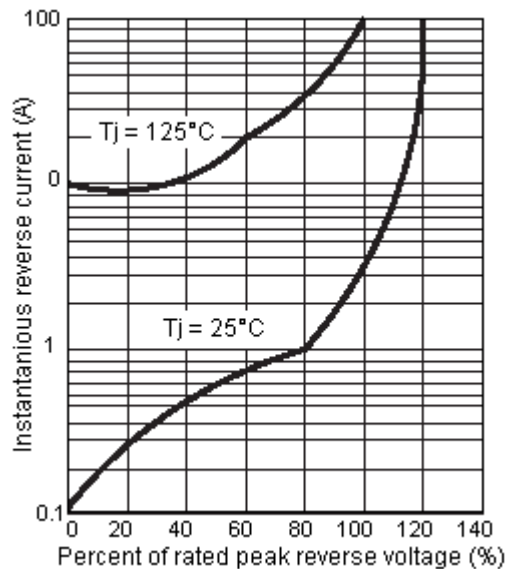
Maximum Forward Current Derating Curve



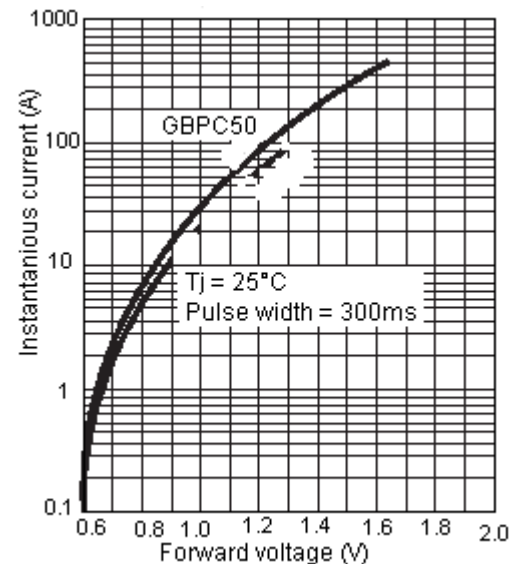
Maximum Non-Repetitive Forward Surge Current



Typical Reverse Characteristics per Bridge Element

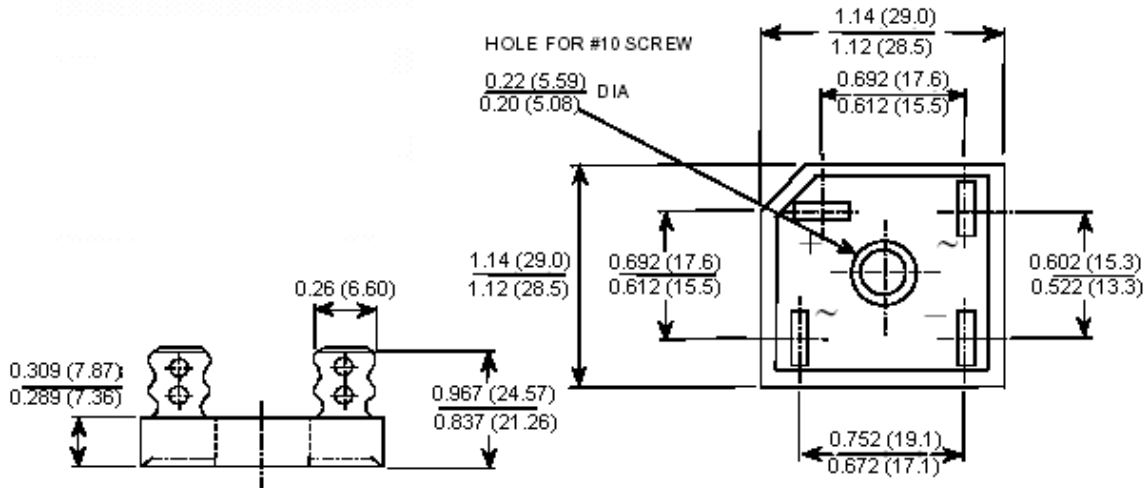


Typical Forward Characteristics per Bridge Element



Single Phase Bridge Rectifier

GBPC50 Series



Dimensions : Inches (Millimetres)

Part Number Table

Description	V _{RRM} (V)	Maximum Input Voltage (V AC)	I _o at 55°C (A)	I _{FSM} (A)	Part Number
Single Phase Bridge Rectifier, GBPC50 Series	50	35	50	400	GBPC50005
	200	140			GBPC5002
	600	420			GBPC5006
	1,000	700			GBPC5010
	50	35			GBPC50005

Important Notice : This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2012.

