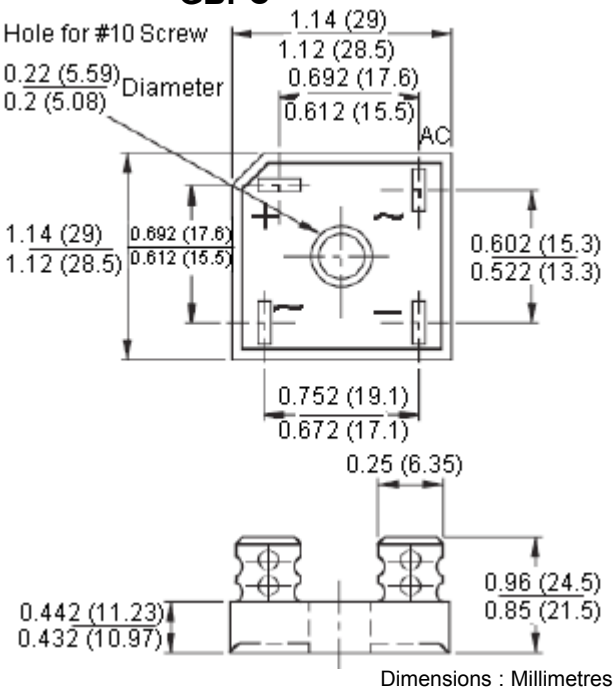
Bridge Rectifier

GBPC Series

GBPC



Dimensions : Millimetres

Features:

- Plastic material
- Integrally moulded heatsink provide very low thermal resistance for maximum heat dissipation
- Surge overload ratings from 300 to 400 A
- Terminals solderable per MIL-STD-202, method 208 (for wire type)
- Typical I_R less than 0.2 μA
- High temperature soldering guaranteed : 260°C / 10 seconds 0.375 inches (9.5 mm) lead lengths (for wire type)
- Isolated voltage from case to lead over 2,500 V

Maximum Ratings and Electrical Characteristics

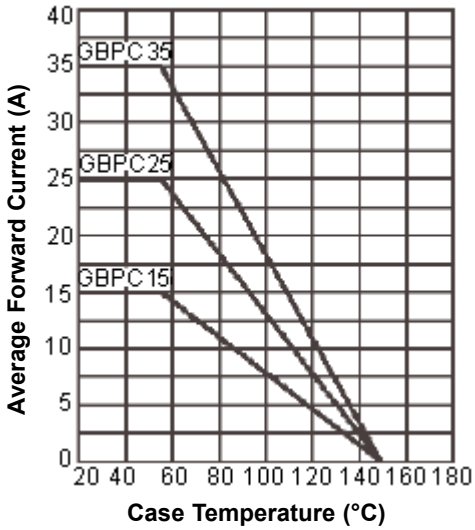
Rating at 25°C ambient temperature unless otherwise specified
Single phase, half wave, 60Hz, resistive or inductive load
For capacitive load, derate current by 20%

Type Number	Symbol	-005	-01	-02	-04	-06	-08	-10	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1,000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1,000	V
Maximum Average Forward Rectified Current at T_c = 55°C GBPC15 / GBPC25 / GBPC35	$I_{(AV)}$	15 / 25 / 35							A
Peak Forward Surge Current, Single Sine-wave Superimposed on Rated Load (JEDEC method) GBPC15 / GBPC25 / GBPC35	I_{FSM}	300 / 300 / 400							A
Maximum Instantaneous Forward Voltage Drop Per Element at Specified Current GBPC15 7.5 A / GBPC25 12.5 A / GBPC35 17.5 A	V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Element	I_R	5							mA
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	1.5							°C / W
Operating and Storage Temperature Range	T_J ,T_{STG}	-50 to +150							°C

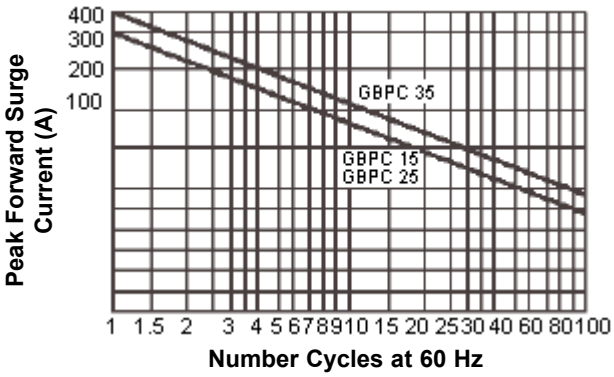
Notes: **1**· Thermal Resistance from Junction to Case
2· Suffix “W” - Wire Lead Structure

Ratings and Characteristic Curves (GBPC15005 thru GBPC1510, GBPC2510, GBPC35005 thru GBPC3510)

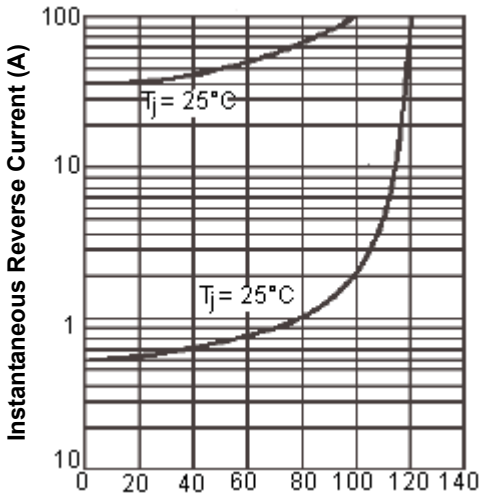
Maximum Forward Current Derating Curve



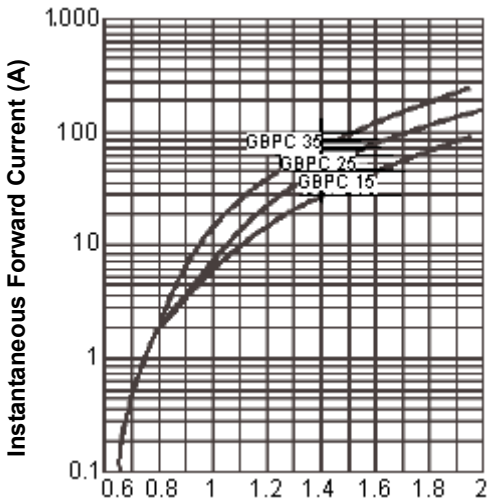
Maximum Non-Repetitive Forward Surge Current Per Bridge Element



Typical Reverse Characteristics Per Bridge Element



Typical Forward Characteristics Per Bridge Element



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Part Number Table

Description	Part Number
Bridge Rectifier, 15 A, 50 V	GBPC15005
Bridge Rectifier, 15 A, 100 V	GBPC1501
Bridge Rectifier,15 A, 200 V	GBPC1502
Bridge Rectifier,15 A, 400 V	GBPC1504
Bridge Rectifier,15 A, 600 V	GBPC1506
Bridge Rectifier, 15 A, 800 V	GBPC1508
Bridge Rectifier, 15 A, 1,000 V	GBPC1510
Bridge Rectifier, 25 A, 1,000 V	GBPC2510
Bridge Rectifier, 35 A, 50 V	GBPC35005B0
Bridge Rectifier, 35 A, 100 V	GBPC3501
Bridge Rectifier, 35 A, 400 V	GBPC3504
Bridge Rectifier, 35 A, 600 V	GBPC3506
Bridge Rectifier, 35 A, 800 V	GBPC3508
Bridge Rectifier, 35 A, 1,000 V	GBPC3510
Bridge Rectifier, 50 A, 100 V	GBPC5001
Bridge Rectifier, 50 A, 400 V	GBPC5004