

Bridge Rectifier GBPC Series

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Features:

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

Characteristics		Symbol	-005+	-01+	-04+	-06+	-08+	-10+	Units
Max. Recurrent Peak Reverse Voltage		V_{RRM}	50	100	400	600	800	1,000	V
Max. RMS Voltage		V_{RMS}	35	70	280	420	560	700	
Max. DC Blocking Voltage		V_{DC}	50	100	400	600	800	1,000	
Maximum Average Forward Rectified Current at $T_c = 55^\circ\text{C}$	GBPC15	$I_{(AV)}$	15						A
	GBPC35		35						
Peak Forward Surge Current, Single Sine-wave Superimposed on Rated Load (JEDEC method)	GBPC15	I_{FSM}	300						A
	GBPC35		400						
Maximum Instantaneous Forward Voltage Drop Per Element at Specified Current	GBPC15 7.5 A	V_F	1.1						V
	GBPC35 17.5 A								
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						$^\circ\text{C} / \text{W}$
Operating and Storage Temperature Range		T_J, T_{STG}	-50 to +150						$^\circ\text{C}$

- Notes:** 1. Thermal Resistance from Junction to Case
2. Suffix "W" - Wire Lead Structure

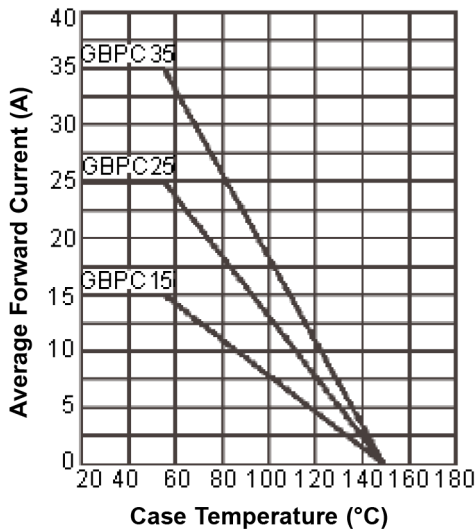
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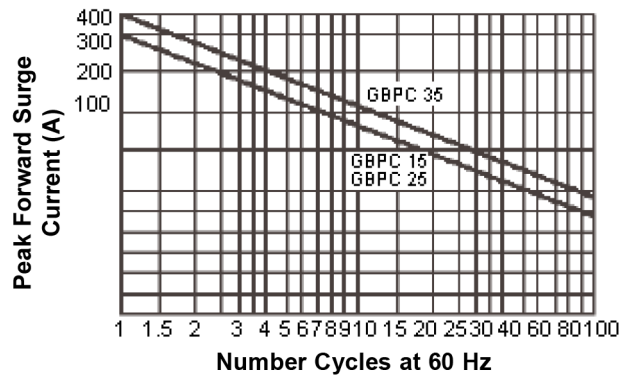
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Ratings and Characteristic Curves

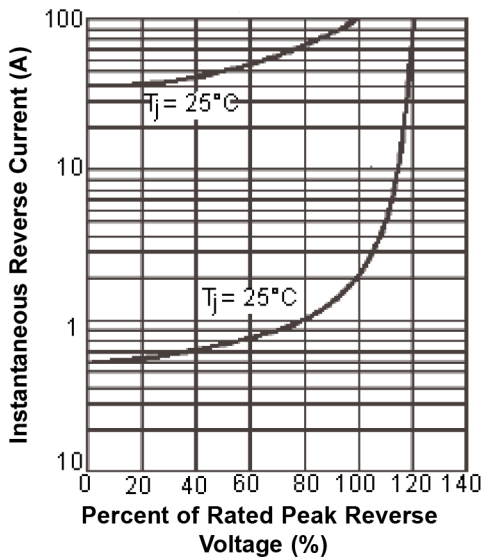
Maximum Forward Current Derating Curve



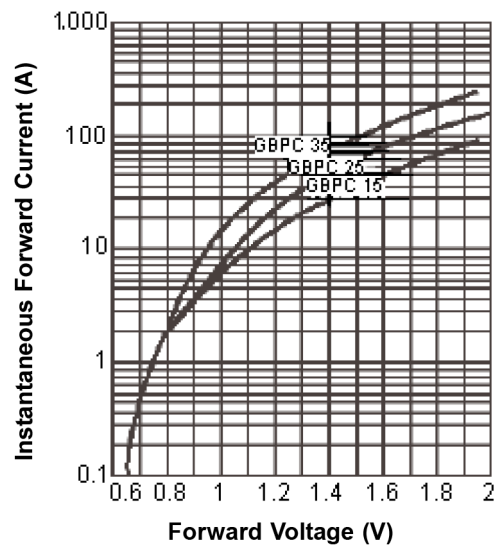
Maximum Non-Repetitive Forward Surge Current Per Bridge Element



Typical Reverse Characteristics Per Bridge Element



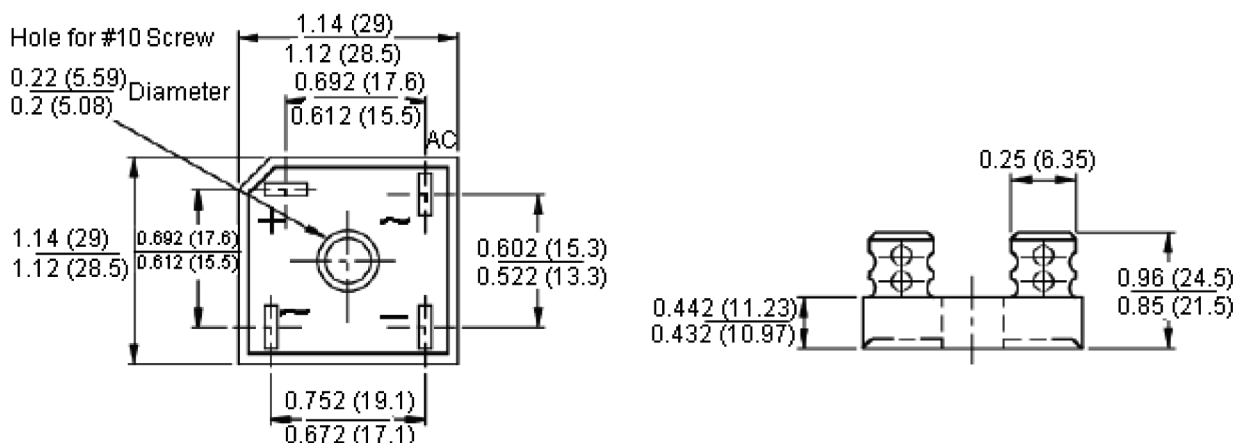
Typical Forward Characteristics Per Bridge Element



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Dimensions:



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Bridge Rectifier, 15A, 50V	GBPC15005+
Bridge Rectifier, 15A, 100V	GBPC1504+
Bridge Rectifier, 15A, 600V	GBPC1506+
Bridge Rectifier, 15A, 800V	GBPC1508+
Bridge Rectifier, 35A, 100V	GBPC3501+
Bridge Rectifier, 35 A, 600V	GBPC3506+
Bridge Rectifier, 35A, 800V	GBPC3508+
Bridge Rectifier, 35A, 1,000V	GBPC3510+
Bridge Rectifier, 50A, 100V	GBPC5001+

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