Glass Passivated Bridge Rectifiers

Comchip
SMD Diode Specialist

GBPC15005W-G Thru. GBPC5010W-G Series

Reverse Voltage: 50 to 1000V
Forward Current: 15/25/35/50A
RoHS Device

Features

-Surge overload -300~450 Amperes peak.

-Low forward voltage drop.

-Electrically isolated base -2000 Volts.

-Materials used carries UL recognition.

-UL recognized file # E349301

Mechanical Data

-Polarity: As marked on Body.

-Mounting position: Any.

-Weight: 11.92 grams (approx.).

GBPC-W

METAL HEAT SINK

0.335(8.50)
0.295(7.50)

1.20(30.5)min

0.042(1.07)
0.038(0.97)

1.133(28.80)
1.114(28.30)

Hole for
No.8 screw
193"(4.9)diam

1.133(28.80)
1.114(28.30)

0.732(18.60)
0.693(17.60)

0.469(11.90)
0.429(10.90)

0.732(18.60)
0.693(17.60)

Dimensions in inches and (millimeter)
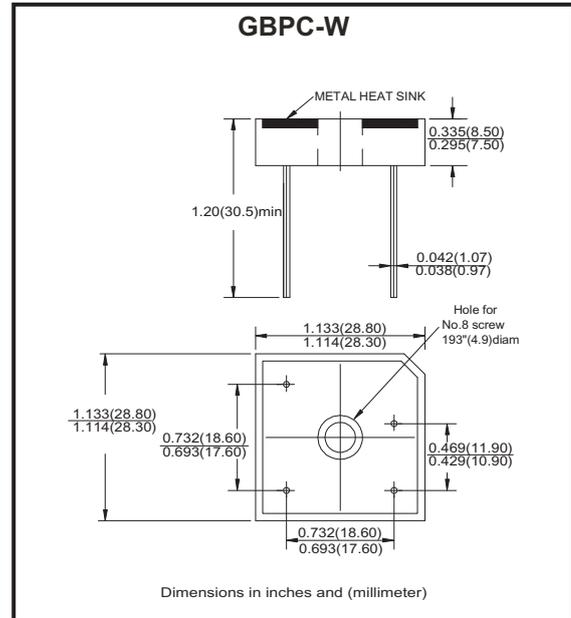
Maximum ratings and electrical characteristics

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%

Parameter	Symbol	GBPC_W-G 15005 25005 35005 50005	GBPC_W-G 1501 2501 3501 5001	GBPC_W-G 1502 2502 3502 5002	GBPC_W-G 1504 2504 3504 5004	GBPC_W-G 1506 2506 3506 5006	GBPC_W-G 1508 2508 3508 5008	GBPC_W-G 1510 2510 3510 5010	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V

Parameter	Symbol	GBPC15W	GBPC25W	GBPC35W	GBPC50W	Unit
Maximum Average Forward Rectified Output Current @Tc=55°C	$I_{(AV)}$	15	25	35	50	A
Peak Forward Surge Current , 8.3ms Single Half Sine-Wave Super Imposed On Rated Load	I_{FSM}	300	350	400	450	A
Maximum Forward Voltage Drop Per Element at 7.5/12.5/17.5/25.0A Peak	V_F	1.1				V
Maximum Reverse Current at rated DC Blocking Voltage Per Element @ T_J=25°C	I_R	10.0				µA
Operating Temperature Range	T_J	-55 to +150				°C
Storage Temperature Range	T_{STG}	-55 to +150				°C

Company reserves the right to improve product design , functions and reliability without notice.

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Rating and Characteristics Curves (GBPC10005W-G Thru. GBPC5010W-G Series)

Fig.1 - Maximum Forward Surge Current
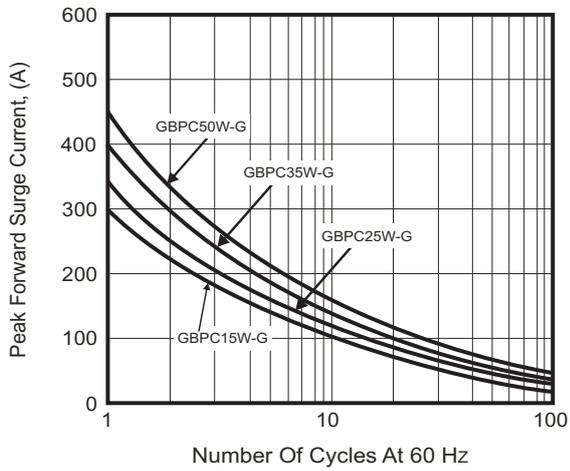
Fig.2 - Dearting Current Output Rectified Current
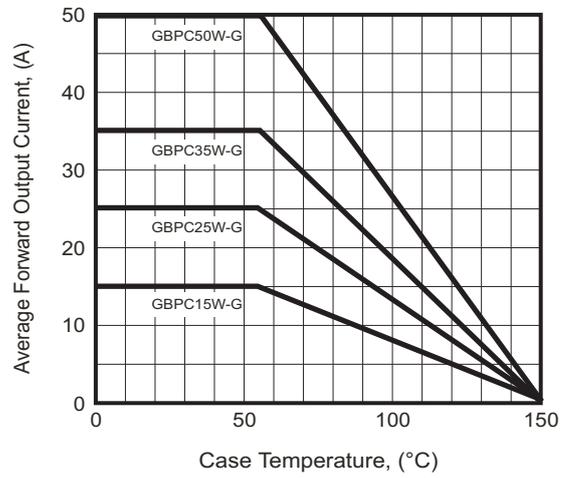
Fig.3 - Typical Forward Characteristics
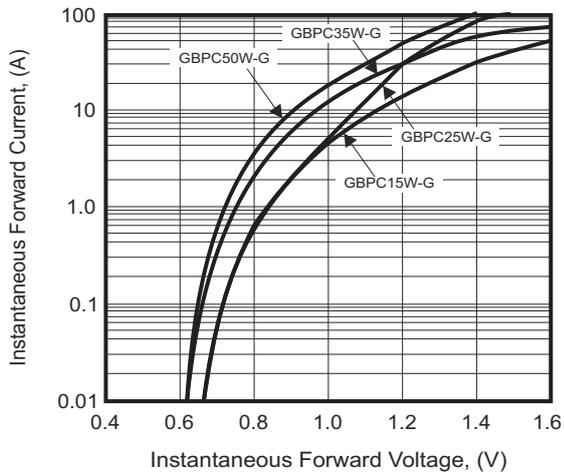
Fig.4 - Typical Reverse Characteristics

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