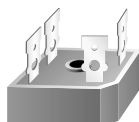




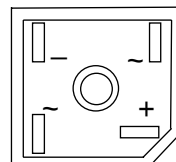
GBPC 12, 15, 25, 35 SERIES

Features

- Integrally molded heatsink provided very low thermal resistance for maximum heat dissipation.
- Surge overload ratings from 300 amperes to 400 amperes.
- Isolated voltage from case to lead over 2500 volts.
- UL certified, UL #E96005.

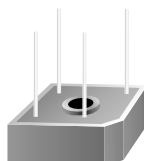


GBPC

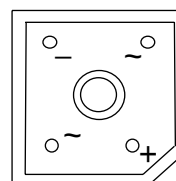


Suffix "W"

Wire Lead Structure



GBPC-W



Suffix "M"

Terminal Location
Face to Face

Bridge Rectifiers (Glass Passivated)

Absolute Maximum Ratings*

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value							Units
		005	01	02	04	06	08	10	
V_{RRM}	Maximum Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
V_{RMS}	Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
V_R	DC Reverse Voltage (Rated V_R)	50	100	200	400	600	800	1000	V
$I_{F(AV)}$	Average Rectified Forward Current @ $T_A = 55^\circ\text{C}$								A
	GBPC12	12							A
	GBPC15	15							A
	GBPC25	25							A
I_{FSM}	Non-repetitive Peak Forward Surge Current	300							A
	GBPC12, 15, 25 8.3 ms Single Half-Sine-Wave								A
	GBPC35	400							A
T_{Stg}	Storage Temperature Range	-55 to +150							$^\circ\text{C}$
T_J	Operating Junction Temperature	-55 to +150							$^\circ\text{C}$

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Bridge Rectifiers (Glass Passivated)

(continued)

Thermal Characteristics

Symbol	Parameter	Value	Units
P_D	Power Dissipation	83.3	W
$R_{\theta JL}$	Thermal Resistance, Junction to Lead	1.5	°C/W

Electrical Characteristics

 $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Device	Units
V_F	Forward Voltage Drop, per bridge @ 6.0 A GBPC12 @ 7.5 A GBPC15 @ 12.5 A GBPC25 @ 17.5 A GBPC35	1.1	V
I_R	Reverse Current, per leg @ rated V_R $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	5.0 500	μA μA
	I^2t rating for fusing $t < 8.3$ ms GBPC12, 15, 25 GBPC35	375 660	A^2Sec A^2Sec
C_T	Total Capacitance, per leg $V_R = 4.0$ V, GBPC12, 15, 25 $f = 1.0$ MHz GBPC35	180 200	pF pF

Typical Characteristics

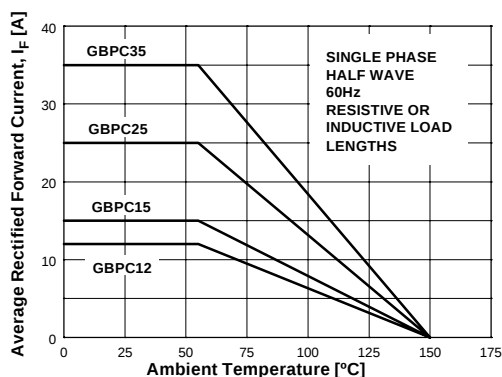


Figure 1. Forward Current Derating Curve

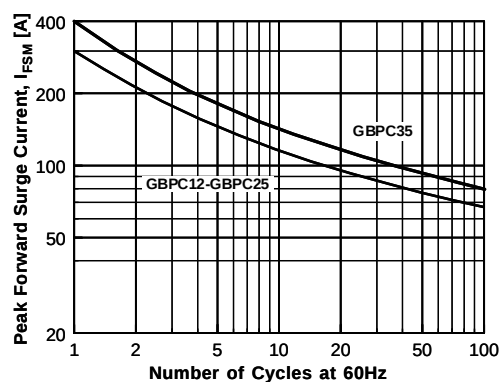


Figure 2. Non-Repetitive Surge Current

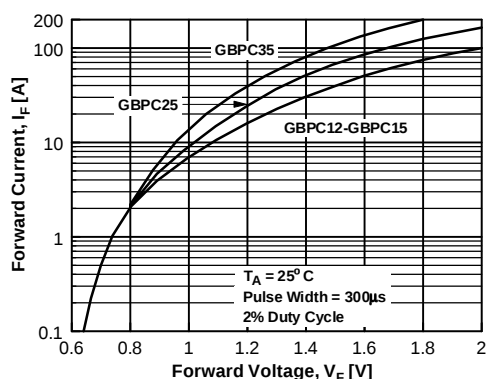


Figure 3. Forward Voltage Characteristics

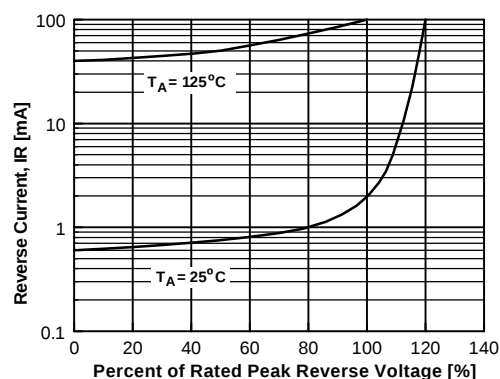


Figure 4. Reverse Current vs Reverse Voltage

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DenseTrench™	GTO™	Power247™	SuperSOT™-6	
DOME™	HiSeC™	PowerTrench [®]	SuperSOT™-8	
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