

GBPC 12, 15, 25, 35 SERIES

SPECIFICATIONS

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$, unless otherwise specified.)

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 at $T_C = 55^\circ\text{C}$	GBPC12		12					A
		GBPC15		15					
		GBPC25		25					
		GBPC35		35					
I_{FSM}	Non-Repetitive Peak Forward Surge Current	GBPC12, 15, 25		300					A
	8.3 ms Single Half-Sine-Wave	GBPC35		400					A
T_{STG}	Storage Temperature Range	-55 to +150							$^\circ\text{C}$
T_J	Operating Junction Temperature	-55 to +150							$^\circ\text{C}$

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

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

THERMAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$, unless otherwise specified.)

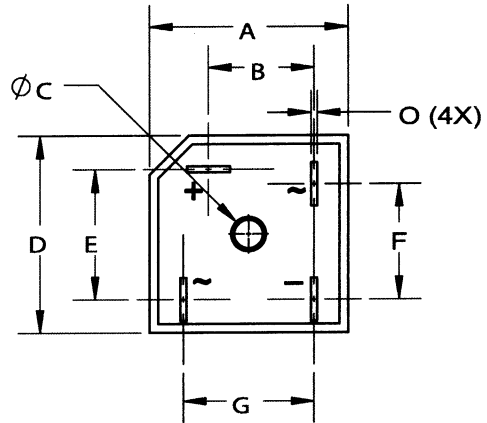
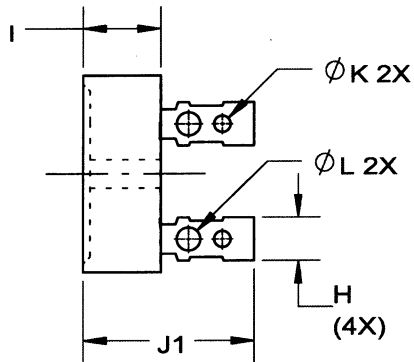
Symbol	Parameter	Value	Unit
P_D	Power Dissipation	83.3	W
$R_{\theta JC}$	Thermal Resistance, Junction to Case (Note 2)	1.5	$^\circ\text{C/W}$

2. With Heatsink.

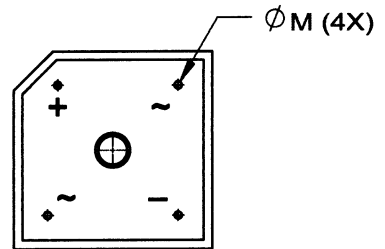
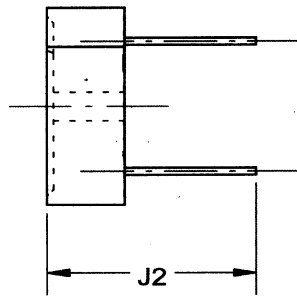
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$, unless otherwise specified.)

Symbol	Parameter	Test Conditions	Value	Unit
V_F	Forward Voltage Drop, per bridge	6.0 A	1.1 (Max)	V
		7.5 A		
		12.5 A		
		17.5 A		
I_R	Reverse Current, per element at Rated V_R	$T_A = 25^\circ\text{C}$	5.0 (Max)	μA
		$T_A = 125^\circ\text{C}$	500 (Max)	μA
I^2t	Rating for Fusing $t < 8.35$ ms	GBPC12, 15, 25	375	A^2Sec
		GBPC35	660	A^2Sec
C_T	Total Capacitance, per leg $V_R = 4.0$ V, $f = 1.0$ MHz	GBPC12, 15, 25	180	pF
		GBPC35	200	pF

GBPC STYLE



GBPC-W STYLE



NOTES:

- A. THIS PACKAGE DOES NOT CONFORM TO ANY STANDARDS.
- B. ALL DIMENSIONS ARE IN MILLIMETERS.
- C. DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH AND TIE BAR PROTRUSIONS.

DIM	MILLIMETERS		
	MIN	NOM	MAX
A	28.50	28.75	29.00
B	13.325	14.375	15.425
C	5.08	5.335	5.59
D	28.50	28.75	29.00
E	15.50	16.55	17.60
F	13.30	14.30	15.30
G	17.10	18.10	19.10
H	~	~	6.35
I	10.97	11.10	11.23
J1	21.50	23.00	24.50
J2	30.50	~	~
ØK	2.39 BSC		
ØL	3.41 BSC		
ØM	0.97	1.02	1.07
O	0.71	0.81	0.91