

GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE - **50 to 1000** Volts
FORWARD CURRENT - **25** Amperes

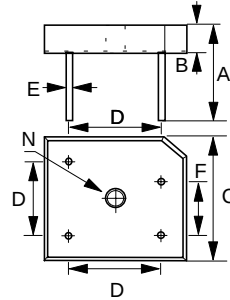
FEATURES

- Rating to 1000V PRV
- High efficiency
- Glass passivated chip junction
- Electrically isolated metal case for maximum heat dissipation
- The plastic material has UL flammability classification 94V-0
- UL Recognition File # E95060

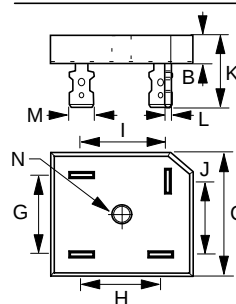
MECHANICAL DATA

- Case : Molded plastic with Heatsink internally mounted in the bridge encapsulation
- Polarity : As marked on Body
- Mounting : Hole for # 10 screw
- Weight : 0.63 ounces , 18.0 grams (terminal)
: 0.51 ounces , 14.5 grams (wire)

GBPC-W (Wire)



GBPC (Terminal)



GBPC/GBPC-W

DIM.	MIN.	MAX.
A	31.80	-
B	7.40	8.00
C	28.30	28.80
D	17.60	18.60
E	0.97	1.07
F	10.90	11.90
G	17.60	18.60
H	13.80	14.80
I	16.10	17.10
J	16.10	17.10
K	18.80	21.30
L	0.76	0.86
M	6.30	6.50
N	HOLE FOR NO. 10 SCREW	
	5.08	5.59

All Dimensions in millimeter

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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	GBPC 25005/W	GBPC 2501/W	GBPC 2502/W	GBPC 2504/W	GBPC 2506/W	GBPC 2508/W	GBPC 2510/W	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	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	1000	V
Maximum Average Forward Rectified Current @ $T_c = 60^\circ\text{C}$ (with heatsink)	$I_{(AV)}$	25.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC METHOD)	I_{FSM}	350							A
Maximum forward Voltage at 12.5A DC	V_F	1.1							V
Maximum DC Reverse Current @ $T_J = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_J = 125^\circ\text{C}$	I_R	5.0 500							μA
$I^2 t$ Rating for fusing ($t < 8.3\text{ms}$), (Note 1)	$I^2 t$	374							A^2S
Typical Junction Capacitance per element (Note 2)	C_J	130							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	1.3							$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ\text{C}$

NOTES : 1.Measured at non-repetitive, for greater than 1ms and less than 8.3ms
2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3.Device mounted on 300mm x 300mm x 1.6mm Cu Plate Heatsink.

REV. 2, 01-Dec-2000, KBDH02

FIG.1 - FORWARD CURRENT DERATING CURVE

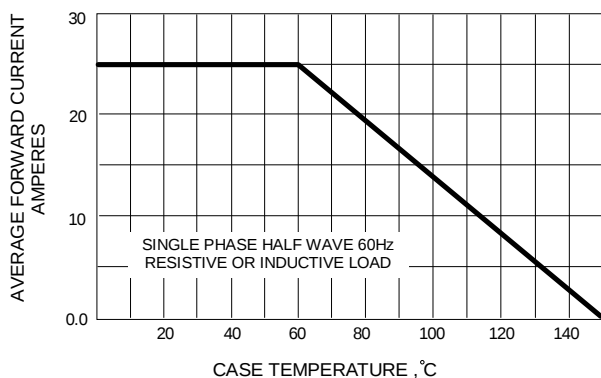


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

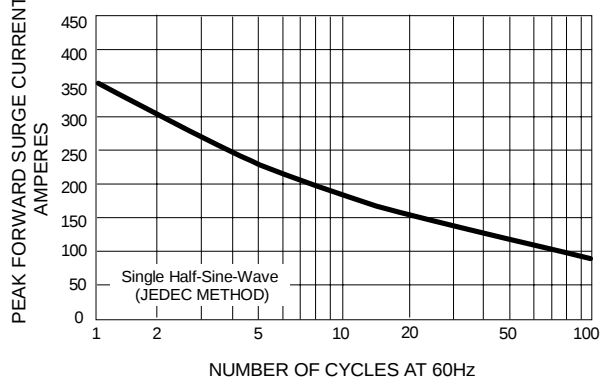


FIG.3 - TYPICAL JUNCTION CAPACITANCE

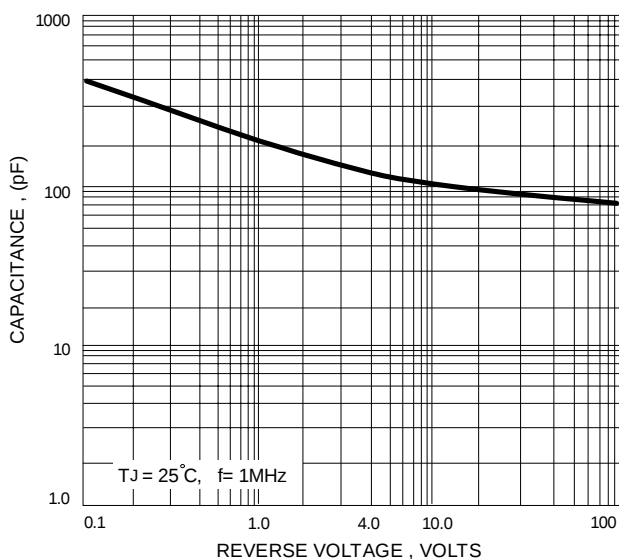


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

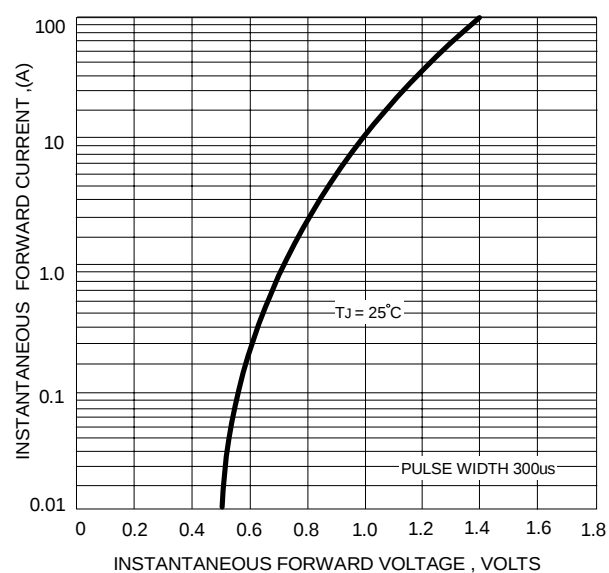


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

