LITE-ON SEMICONDUCTOR

GBPC25005(W) thru 2510(W)

GLASS PASSIVATED BRIDGE RECTIFIERS

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

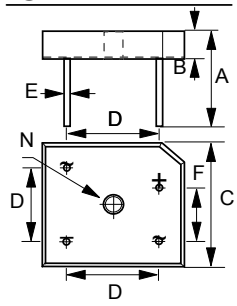
FEATURES

- 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

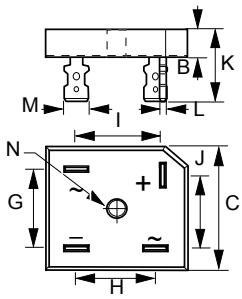
MECHANICAL DATA

- 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℃ 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 = Ta	$I_{(AV)}$	25.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	350							A
Maximum forward Voltage at 12.5A DC	V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T_J =25℃ / @T_J =125℃	I_R	5.0 / 500							uA
I^2t Rating for fusing (t < 8.3ms), (Note 1)	I^2t	508							A^2S
Typical Junction Capacitance per element (Note 2)	C_J	130							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	5.0							°C/W
Operating Temperature Range	T_J	-55 to +150							℃
Storage Temperature Range	T_{STG}	-55 to +150							℃

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. 3, Jun-2007, KBDH02

RATING AND CHARACTERISTIC CURVES
GBPC25005(W) thru GBPC2510(W)

FIG.1 - FORWARD CURRENT DERATING CURVE

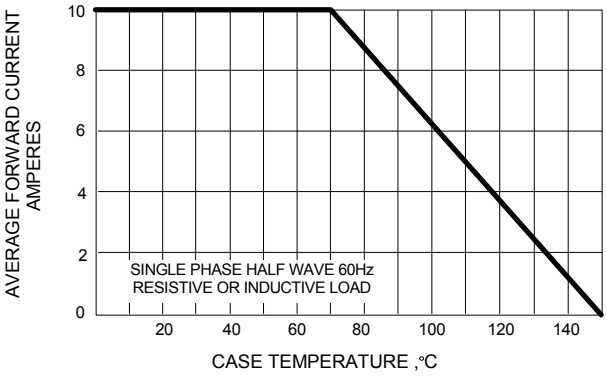


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

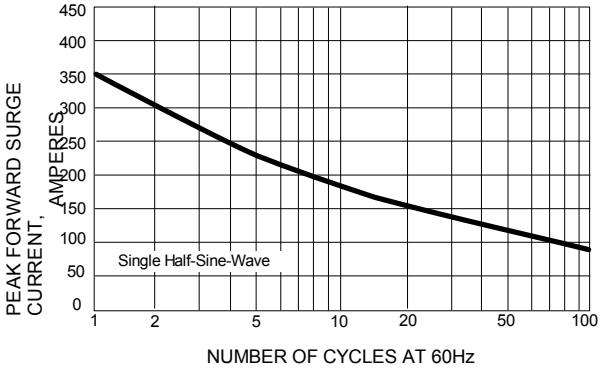


FIG.3 - TYPICAL JUNCTION CAPACITANCE

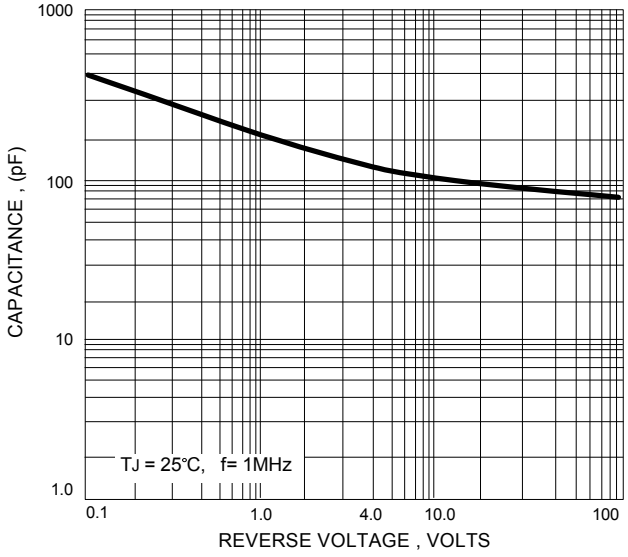


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

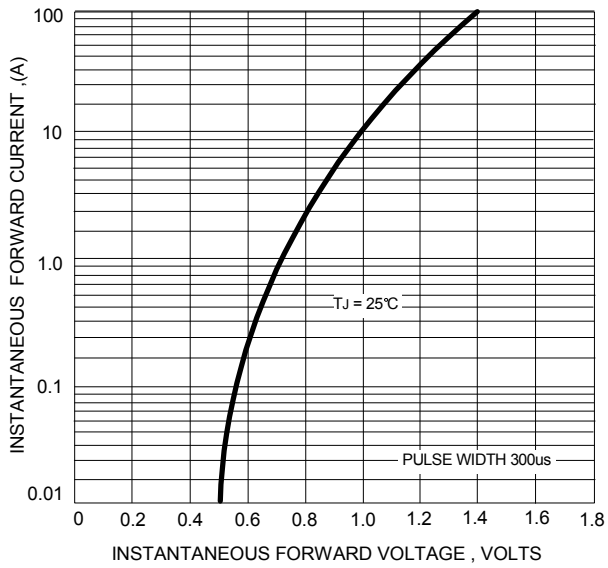


FIG.5 - TYPICAL REVERSE CHARACTERISTICS