

**GLASS PASSIVATED BRIDGE RECTIFIERS**

REVERSE VOLTAGE - **50 to 1000** Volts  
FORWARD CURRENT - **35** Amperes

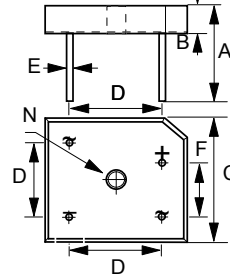
**FEATURES**

- 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

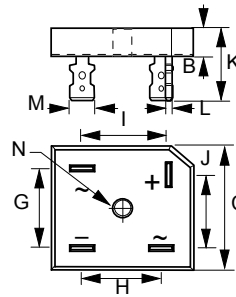
**MECHANICAL DATA**

- 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.

CHARACTERISTICS	SYMBOL	GBPC 35005/W	GBPC 3501/W	GBPC 3502/W	GBPC 3504/W	GBPC 3506/W	GBPC 3508/W	GBPC 3510/W	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T <sub>c</sub> = T <sub>a</sub>	I <sub>(AV)</sub>	35.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	400							A
Maximum forward Voltage at 17.5A DC	V <sub>F</sub>	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T <sub>J</sub> = 25°C @T <sub>J</sub> = 125°C	I <sub>R</sub>	5.0 500							uA
I <sup>2</sup> t Rating for fusing (t < 8.3ms), (Note 1)	I <sup>2</sup> t	660							A <sup>2</sup> S
Typical Junction Capacitance per element (Note 2)	C <sub>J</sub>	150							pF
Typical Thermal Resistance (Note 3, see Fig.1)	R <sub>θJC</sub>	5.0							°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°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. 4, Sep-2010, KBDH03

FIG.1 - FORWARD CURRENT DERATING CURVE

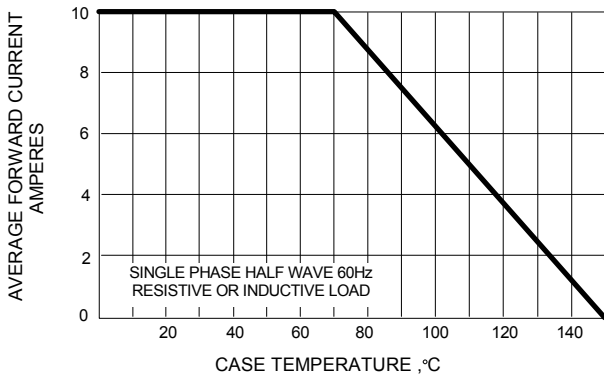


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

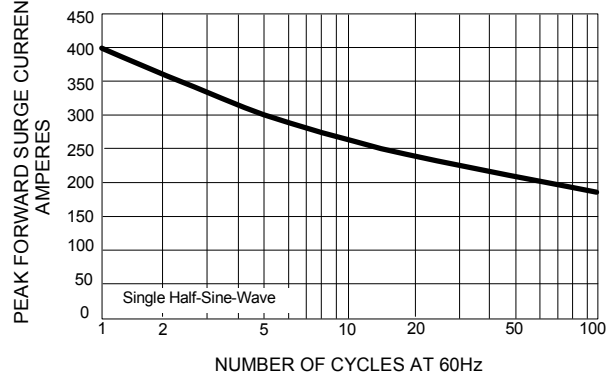


FIG.3 - TYPICAL JUNCTION CAPACITANCE

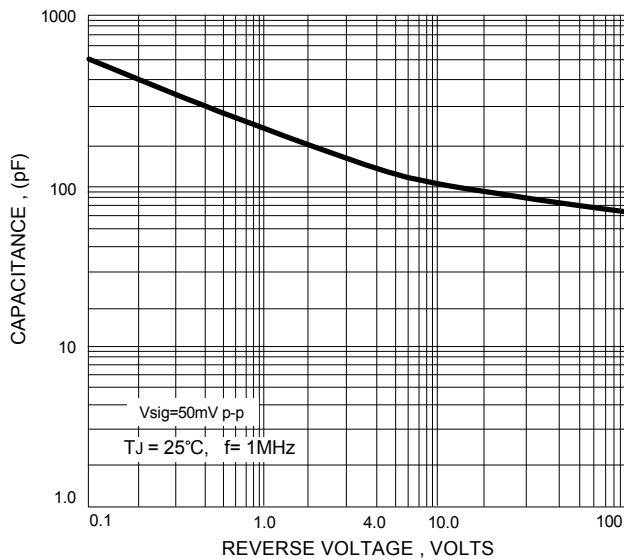


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

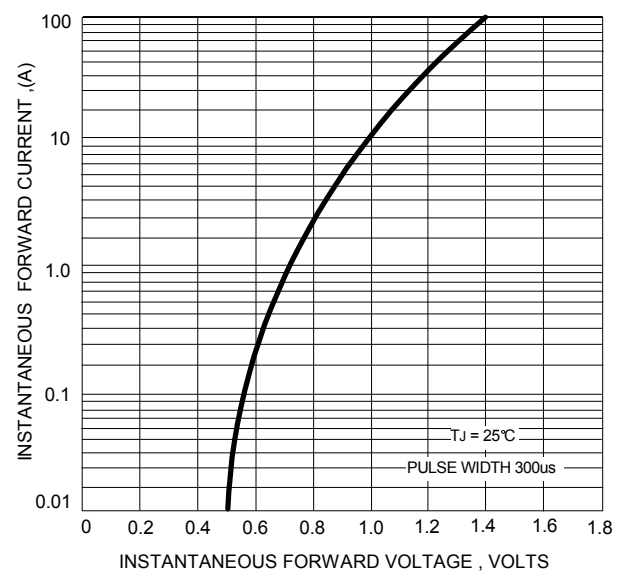
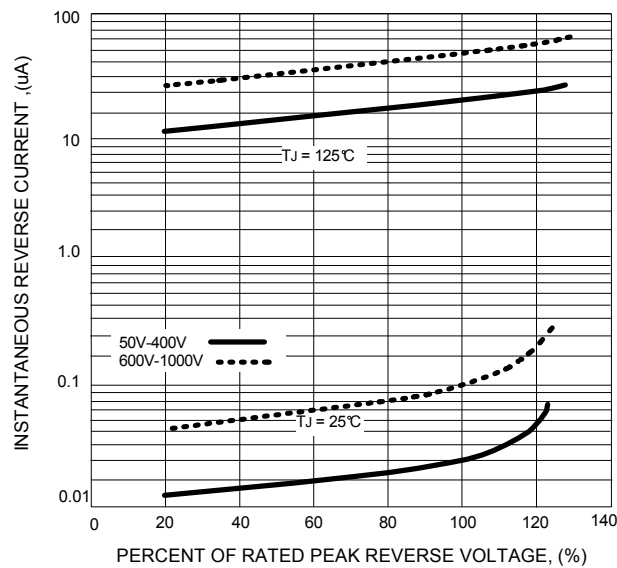


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



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