

**GLASS PASSIVATED BRIDGE RECTIFIERS**

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

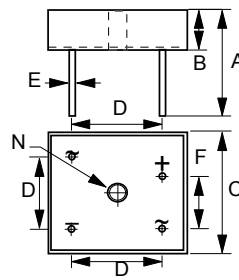
**FEATURES**

- Rating to 1000V PRV
- High efficiency
- Glass passivated chip junction
- Electrically isolated metal case for maximum heat dissipation
- UL recognized file # E95060

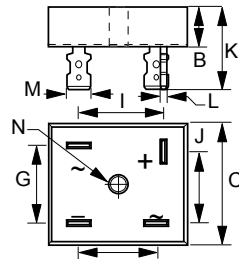
**MECHANICAL DATA**

- Case : Mounted in the bridge encapsulation
- Mounting : Hole for # 10 screw
- Polarity : As marked on case
- Weight : 0.85 ounces , 24.0 grams (terminal)  
: 0.74 ounces , 21.0 grams (wire)

**KBPC-GW (Wire)**



**KBPC-G (Terminal)**



KBPC-G/KBPC-GW		
DIM.	MIN.	MAX.
A	31.80	-
B	7.90	8.40
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	KBPC25 005G/W	KBPC25 01G/W	KBPC25 02G/W	KBPC25 04G/W	KBPC25 06G/W	KBPC25 08G/W	KBPC25 10G/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>	25.0							A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load	I <sub>FSM</sub>	350							A
Maximum forward Voltage at 12.5A 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	508							A <sup>2</sup> S
Typical Junction Capacitance per element (Note 2)	C <sub>J</sub>	300							pF
Typical Thermal Resistance (Note 3)	R <sub>θJC</sub>	3.0							°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. 3, Jun-2007, KBDI02

FIG.1 - FORWARD CURRENT DERATING CURVE

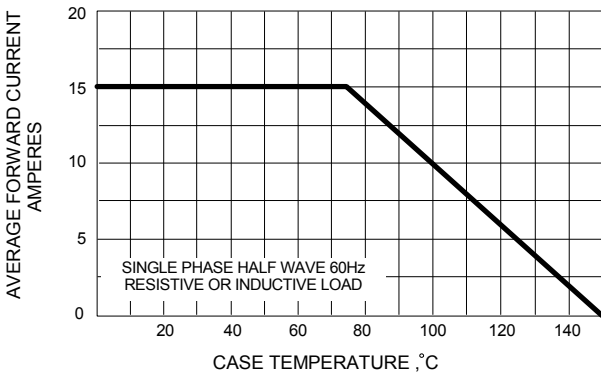


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

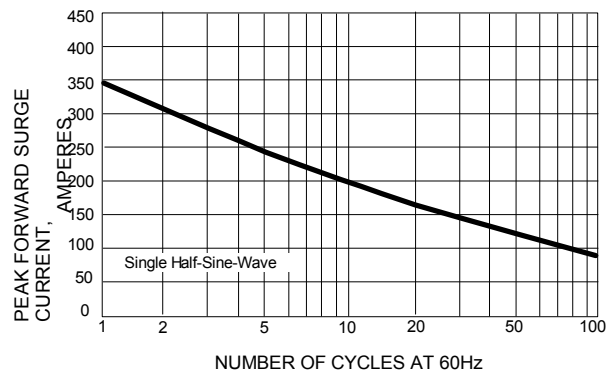


FIG.3 - TYPICAL JUNCTION CAPACITANCE

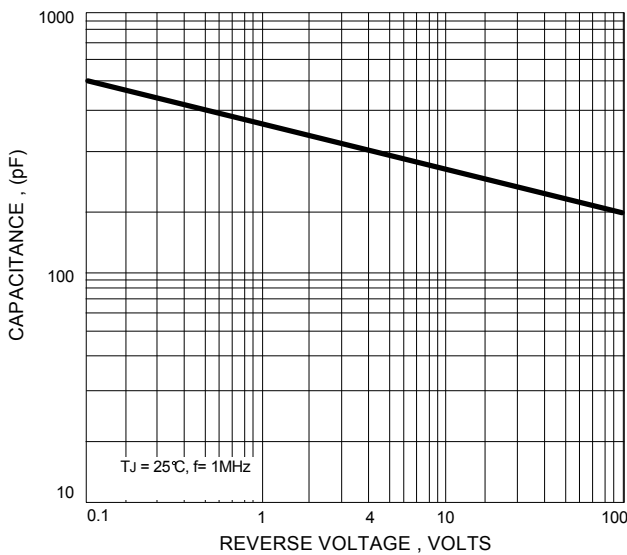


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

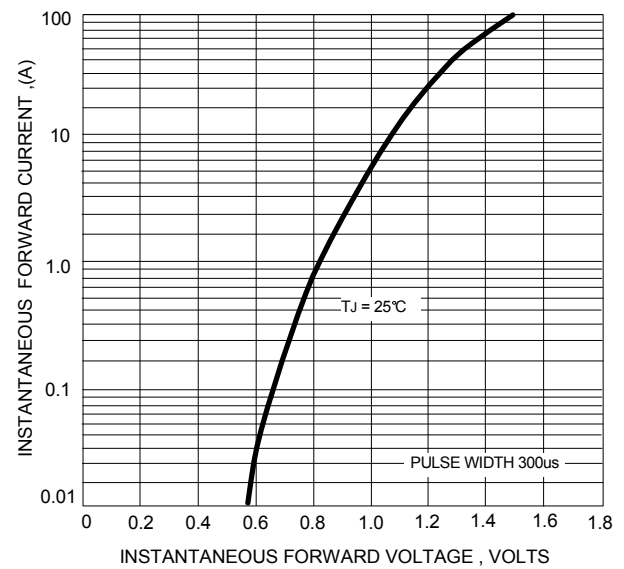


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

