



E502650

## Features

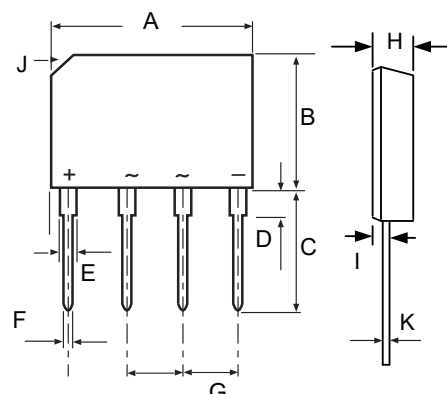
- Halogen Free. "Green" Device (Note 1)
- Glass Passivated Chip Junction
- High Surge Forward Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note 2) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

# 8 Amp Bridge Rectifier 1000 Volts

## Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	1000	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{RMS}$	700	V
Average Rectified Forward Current @ $T_C=130^\circ\text{C}$	$I_{F(AV)}$	8	A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	$I_{FSM}$	170	A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		340	
$I^2t$ Rating for Fusing @ $1\text{ms} \leq t \leq 8.3\text{ms}$	$I^2t$	120	$\text{A}^2\text{s}$
Dielectric strength @ Terminals to Case, AC 1 Minute	$V_{dis}$	2	KV

GBP



## DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.561	0.580	14.25	14.75	
B	0.406	0.417	10.10	10.60	
C	0.561	0.581	14.25	14.73	
D	0.071	0.087	1.80	2.20	
E	0.046	0.056	1.17	1.42	
F	0.030	0.034	0.76	0.86	
G	0.140	0.160	3.56	4.06	
H	0.131	0.161	3.35	4.10	
I	0.031	0.043	0.80	1.10	
J	0.106 X 45°		2.70 X 45°		
K	0.012	0.025	0.30	0.64	

## Internal Structure

Simplified Outline	Graphic Symbol

Note:

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High temperature solder exemption applied, see EU directive annex 7a.

### Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T <sub>J</sub>	Operating Junction Temperature Range		-55		150	°C
T <sub>stg</sub>	Storage Temperature Range		-55		150	°C
Rth(J-C)	Thermal Resistance from Junction to Case	Note 1		1.5		°C/W
Rth(J-A)	Thermal Resistance from Junction to Ambient	Without Heatsink		45		°C/W

Note:  
 1.Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

### Electrical Characteristics @ 25°C Unless Otherwise Specified(Per Diode)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =4A;T <sub>J</sub> =25°C			1.0	V
Reverse Current	I <sub>R</sub>	at Rated V <sub>R</sub> ;T <sub>J</sub> =25°C at Rated V <sub>R</sub> ;T <sub>J</sub> =125°C			5 100	μA
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> =4V;f=1MHz;T <sub>J</sub> =25°C		50		pF

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

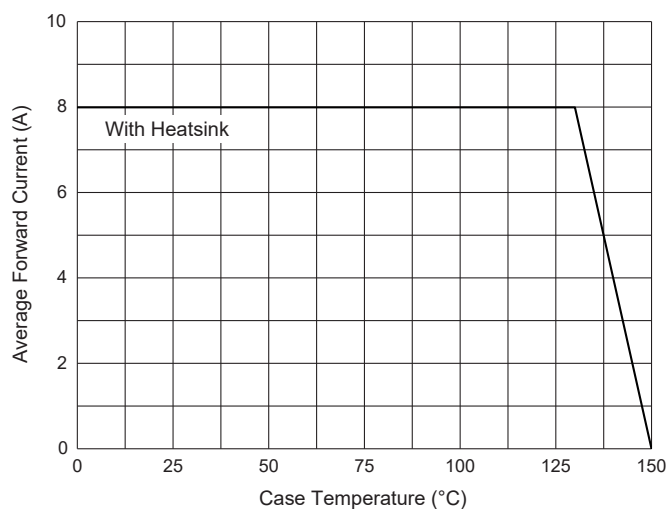


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

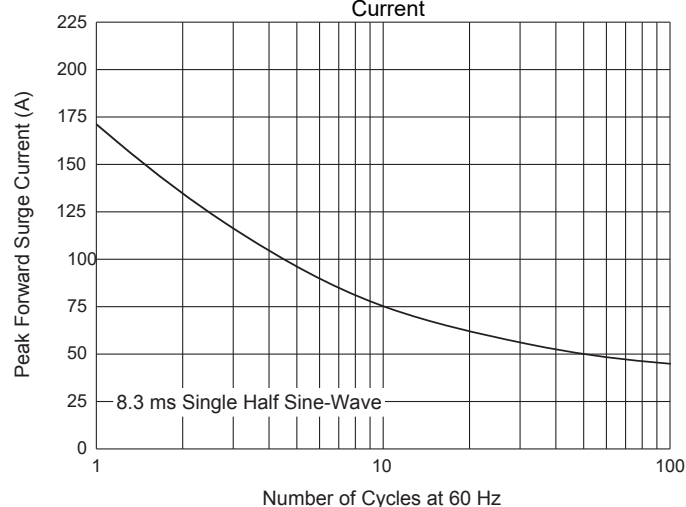


Fig. 3 - Typical Forward Characteristics

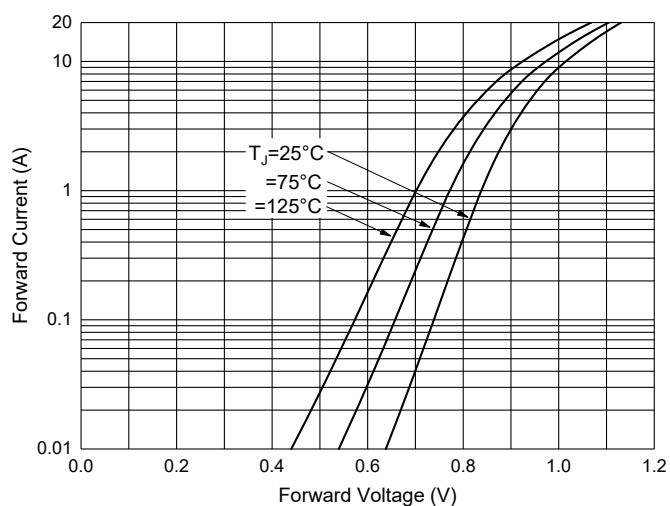


Fig. 4 - Typical Reverse Leakage Characteristics

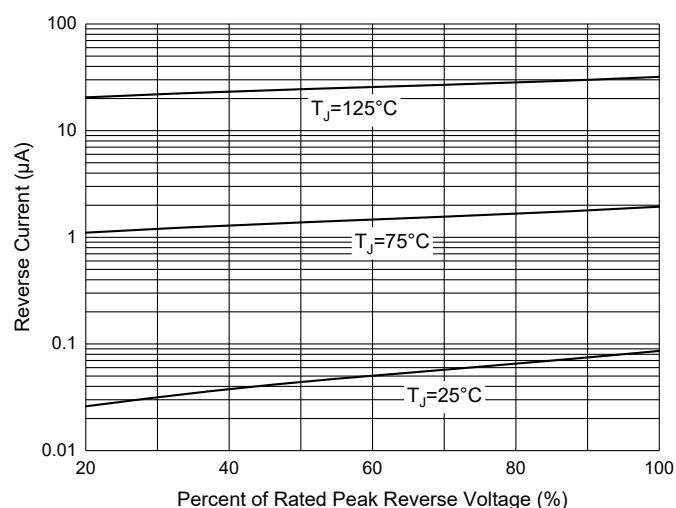
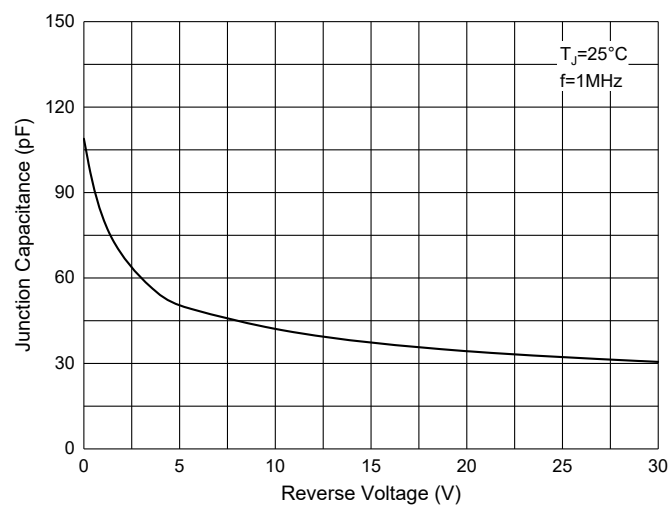


Fig. 5 - Typical Capacitance Characteristics



## Ordering Information

Device	Packing
KBP810G-BP	Bulk:35pcs/Tube,2.1Kpcs/Box,4.2Kpcs/Carton

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