

	<b>E502650</b>
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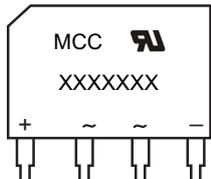
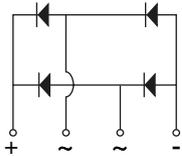
**Features**

- 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)

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

Parameter	Symbol	Value							Unit
		KBP 4005G	KBP 401G	KBP 402G	KBP 404G	KBP 406G	KBP 408G	KBP 410G	
Peak Repetitive Reverse Voltage	$V_{RRM}$								V
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000	
DC Blocking Voltage	$V_R$								
RMS Reverse Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Average Rectified Forward Current	$I_{F(AV)}$	4							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	$I_{FSM}$	135							A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		270							
$I^2t$ Rating for Fusing @ 1ms ≤ t ≤ 8.3ms	$I^2t$	75.6							A <sup>2</sup> s
Dielectric strength @ Terminals to Case, AC 1 Minute	$V_{dis}$	2							KV

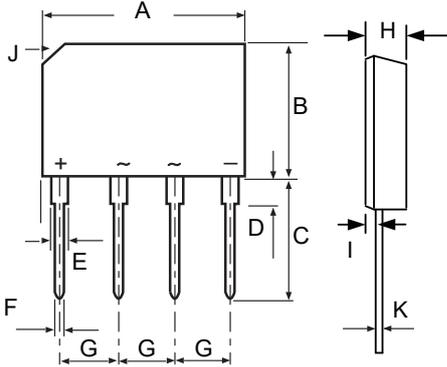
Part Number	Marking Code
KBP4005G	KBP4005G
KBP401G	KBP401G
KBP402G	KBP402G
KBP404G	KBP404G
KBP406G	KBP406G
KBP408G	KBP408G
KBP410G	KBP410G

Marking Diagram	Internal Structure
 <p>Marking Code: XXXXXXXX</p>	

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.

**4 Amp  
Bridge Rectifier  
50 to 1000 Volts**

**GBP**



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	

### Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
$T_J$	Operating Junction Temperature Range		-55		150	°C
$T_{stg}$	Storage Temperature Range		-55		150	°C
$R_{th(J-C)}$	Thermal Resistance from Junction to Case	Note 1		5		°C/W
$R_{th(J-A)}$	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	$V_F$	$I_F=2A; T_J=25^\circ C$			1.0	V
Reverse Current	$I_R$	at Rated $V_R; T_J=25^\circ C$ at Rated $V_R; T_J=125^\circ C$			5 100	$\mu A$
Junction Capacitance	$C_J$	$V_R=4V; f=1MHz; T_J=25^\circ C$		40		pF

**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

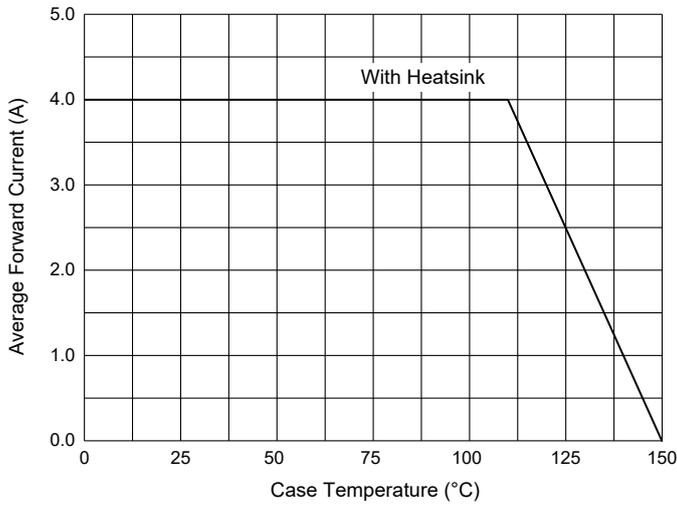


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

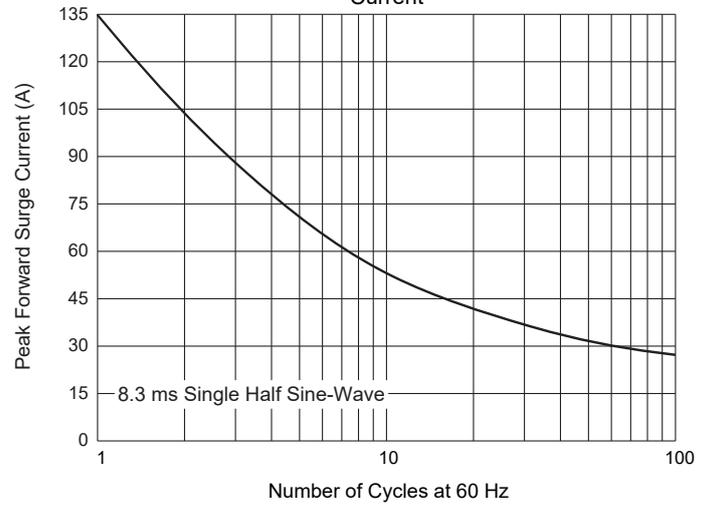


Fig. 3 - Typical Forward Characteristics

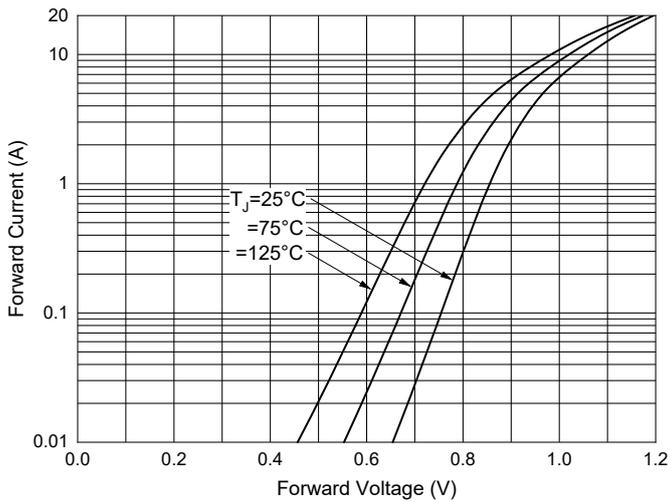


Fig. 4 - Typical Reverse Leakage Characteristics

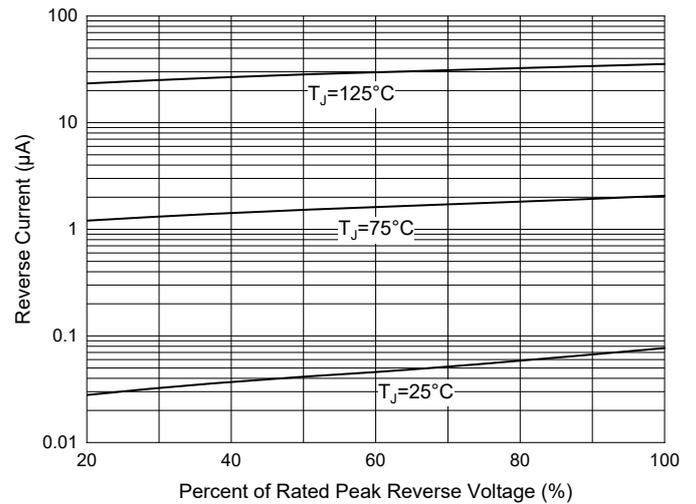
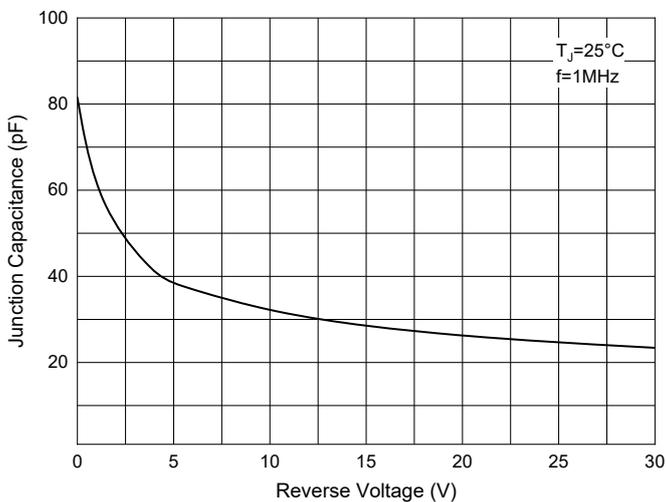


Fig. 5 - Typical Capacitance Characteristics



## Ordering Information

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

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