

	<b>E502650</b>
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## Features

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

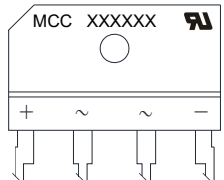
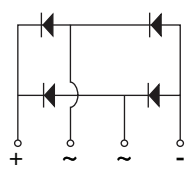
## Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		KBJ10005G	KBJ1001G	KBJ1002G	KBJ1004G	KBJ1006G	KBJ1008G	KBJ1010G	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V <sub>RWM</sub>								
DC Blocking Voltage	V <sub>R</sub>								
RMS Reverse Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Average Rectified Forward Current @ T <sub>C</sub> =110°C	I <sub>F(AV)</sub>	10							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I <sub>FSM</sub>	175							A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		350							
I <sup>2</sup> t Rating for Fusing @1ms≤t≤8.3ms	I <sup>2</sup> t	127							A <sup>2</sup> s
Dielectric strength @Terminals to Case, AC 1 Minute	V <sub>dis</sub>	2							KV

## Marking Code

Part Number	Marking Code
KBJ1005G	KBJ10005G
KBJ1001G	KBJ1001G
KBJ1002G	KBJ1002G
KBJ1004G	KBJ1004G
KBJ1006G	KBJ1006G
KBJ1008G	KBJ1008G
KBJ1010G	KBJ1010G

## Internal Structure

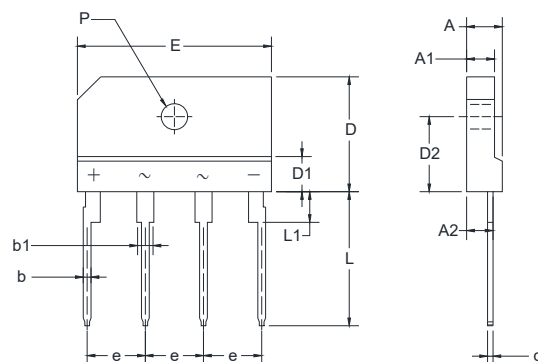
Simplified Outline	Graphic Symbol
 <p>XXXXXX: Marking Code</p>	

Note:

1. High temperature solder exemption applied, see EU directive annex 7a.

# 10 Amp Bridge Rectifier 50 to 1000 Volts

KBJ



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.173	0.189	4.40	4.80	
A1	0.134	0.150	3.40	3.80	
A2	0.126	0.134	3.20	3.40	
b	0.035	0.043	0.90	1.10	
b1	0.059	0.075	1.50	1.90	
c	0.024	0.031	0.60	0.80	
D	0.579	0.602	14.70	15.30	
D1	0.150	0.165	3.80	4.20	
D2	0.374	0.413	9.50	10.50	
E	0.976	0.992	24.80	25.20	
e	0.287	0.303	7.30	7.70	
L	0.669	0.709	17.00	18.00	
L1	0.130	0.146	3.30	3.70	
P	0.122	0.134	3.10	3.40	Ø

## 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		2		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Without Heatsink		20		°C/W

Note:

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

## Mechanical Data

Recommended Mounting Torque: 0.5 N•m

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	$V_F$	$I_F=5A; T_J=25^{\circ}C$			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	$C_J$	$V_R=4V; f=1MHz; T_J=25^{\circ}C$		70		pF

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

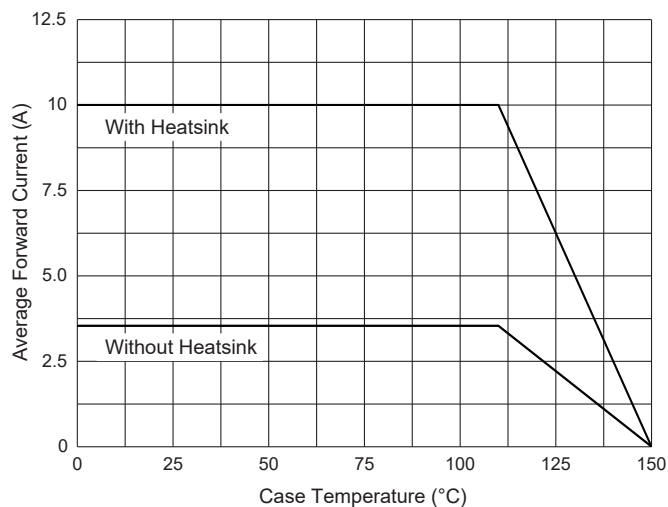


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

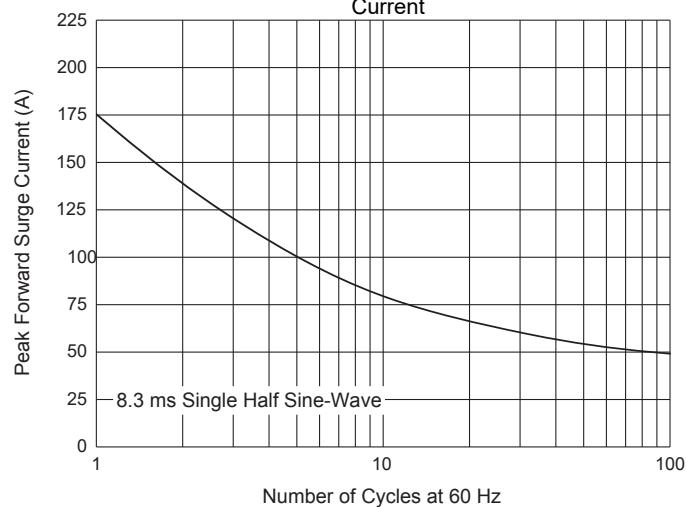


Fig. 3 - Typical Forward Characteristics

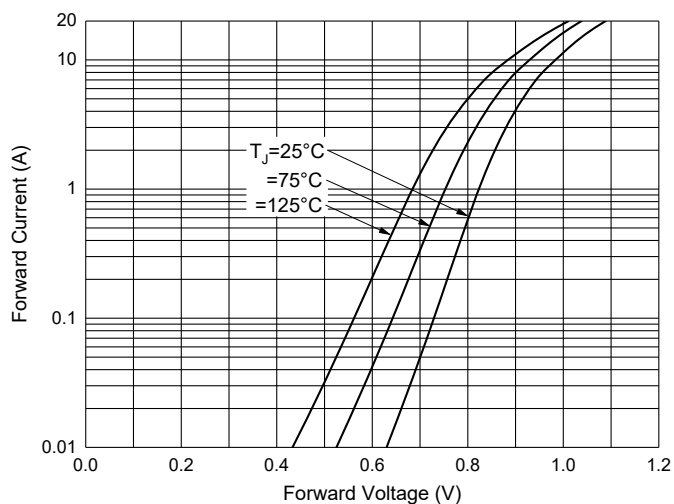


Fig. 4 - Typical Reverse Leakage Characteristics

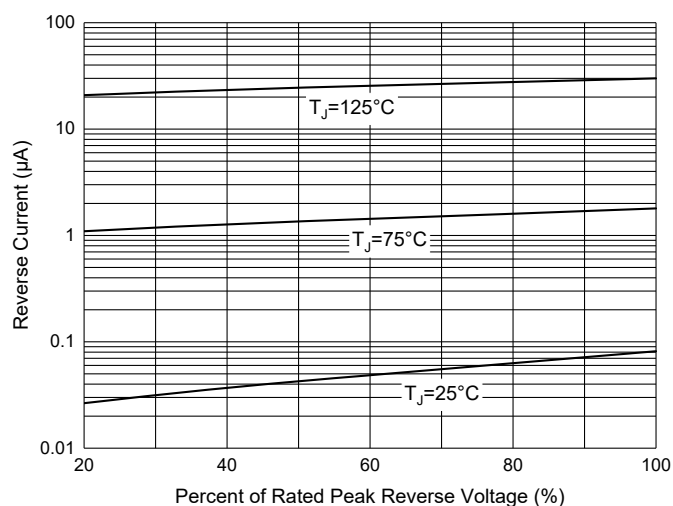
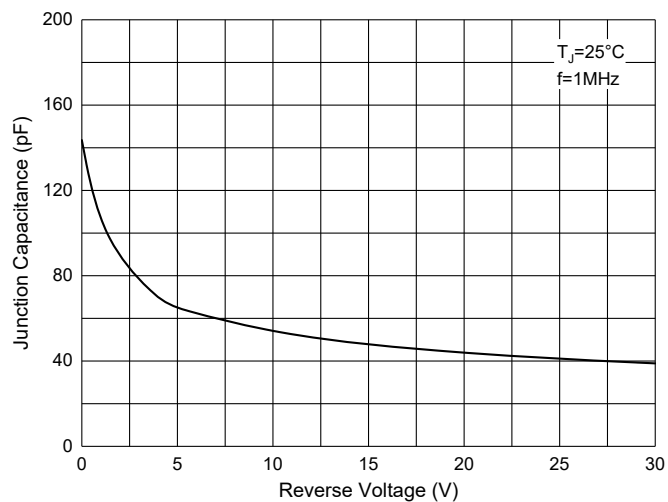


Fig. 5 - Typical Capacitance Characteristics



## Ordering Information

Device	Packing
Part Number-BP	Bulk:20pcs/Tube,1Kpcs/Box,2Kpcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-BP-HF

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