



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)

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

Parameter	Symbol	Value								Unit
		KBJA 10005	KBJA 1001	KBJA 1002	KBJA 1004	KBJA 1006	KBJA 1008	KBJA 1010		
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> =95°C	I <sub>F(AV)</sub>	10							A	
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I <sub>FSM</sub>	150							A	
Non-Repetitive Peak Surge Current @ 1ms Square Wave		300								
I <sup>2</sup> t Rating for Fusing @ 1ms≤t≤8.3ms	I <sup>2</sup> t	93							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
KBJA10005	KBJA10005
KBJA1001	KBJA1001
KBJA1002	KBJA1002
KBJA1004	KBJA1004
KBJA1006	KBJA1006
KBJA1008	KBJA1008
KBJA1010	KBJA1010

## Internal Structure

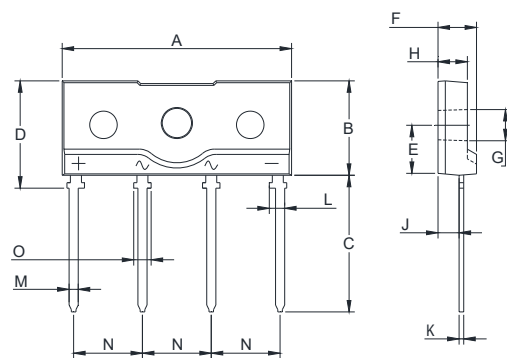
Simplified Outline	Graphic Symbol
<p>XXXXXXX: Marking Code</p>	

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.

# 10 Amp Bridge Rectifier 50 to 1000 Volts

JB



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.972	0.996	24.70	25.30	
B	0.394	0.417	10.00	10.60	
C	0.575	0.598	14.60	15.20	
D	0.449	0.472	11.40	12.00	
E	0.213	0.236	5.40	6.00	
F	0.154	0.177	3.90	4.50	
G	0.122	0.134	3.10	3.40	
H	0.114	0.138	2.90	3.90	
J	0.079	0.102	2.00	2.60	
K	0.012	0.024	0.40	0.60	
L	-	0.069	-	1.75	
M	0.035	0.043	0.90	1.10	
N	0.287	0.303	7.30	7.70	
O	0.083	0.091	2.10	2.30	

## 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		2.8		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Without Heatsink		28		°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	$C_J$	$V_R=4V; f=1MHz; T_J=25^{\circ}C$		50		pF

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

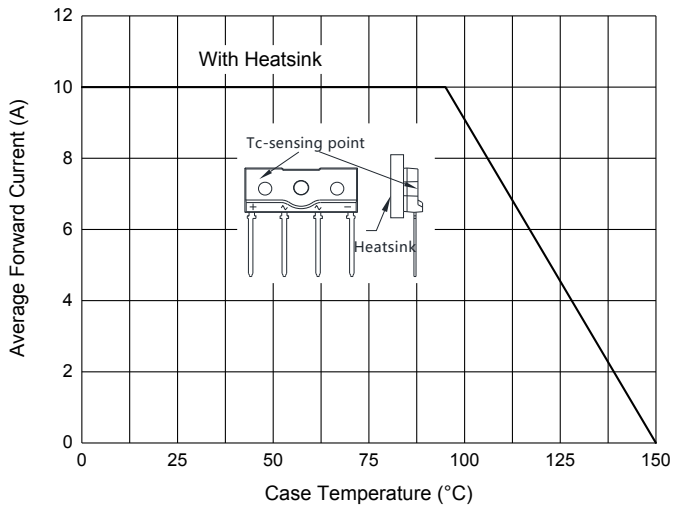


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

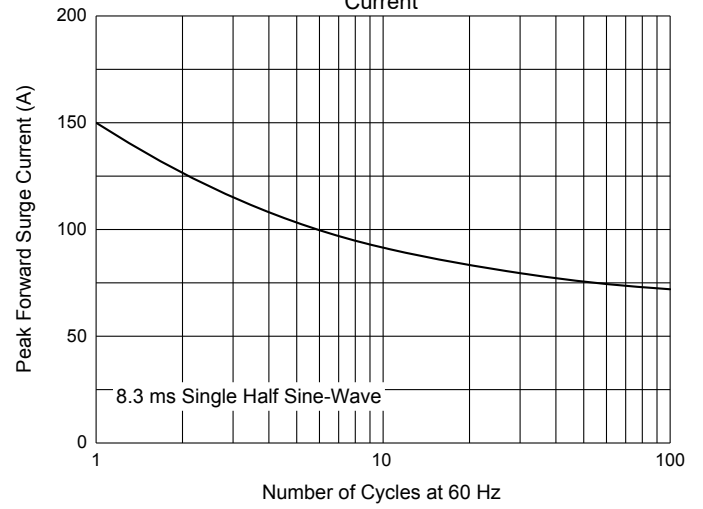


Fig. 3 - Typical Forward Characteristics

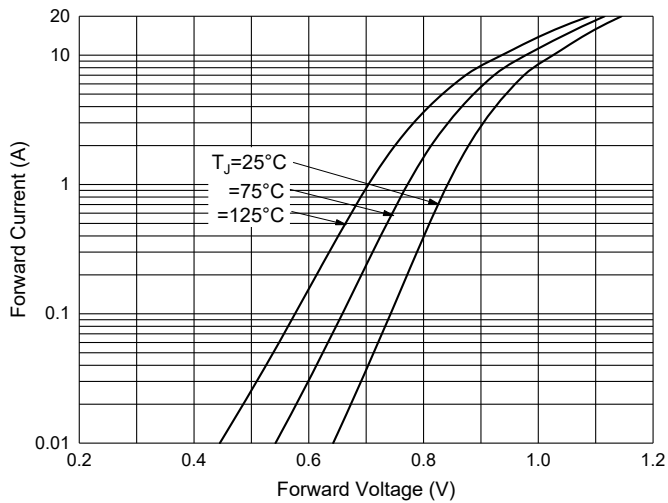


Fig. 4 - Typical Reverse Leakage Characteristics

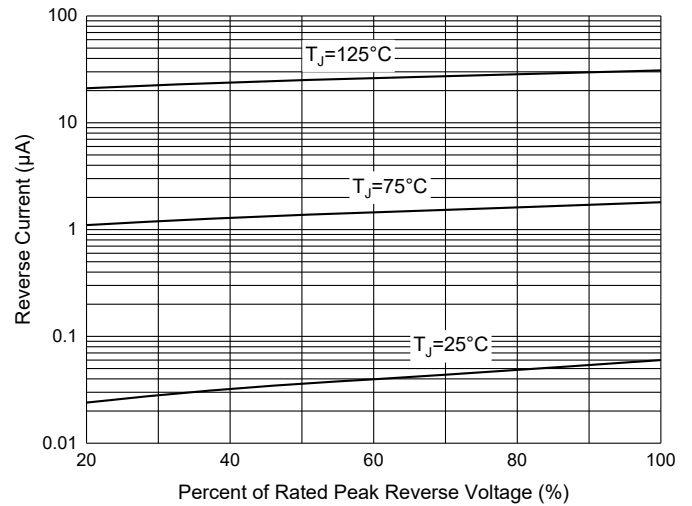
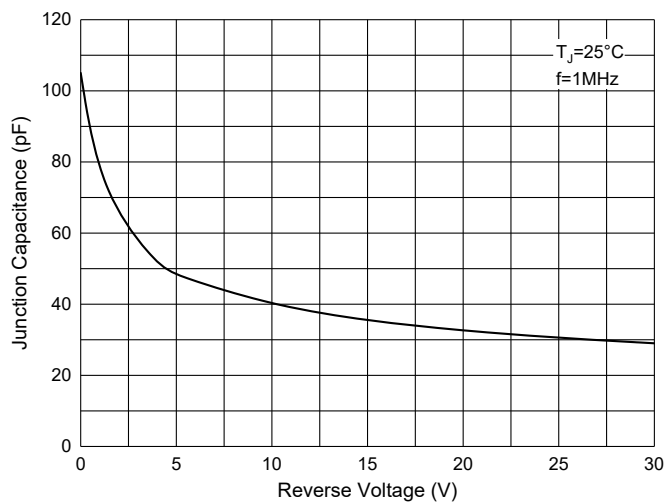


Fig. 5 - Typical Capacitance Characteristics



## Ordering Information

Device	Packing
Part Number-BP	Bulk:20pcs/Tube,900pcs/Box,1800pcs/Carton

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