



#### 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)

		Value							
Parameter	Symbol	KBJA 8005	KBJA 801	KBJA 802	KBJA 804	KBJA 806	KBJA 808	KBJA 810	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$								
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000	V
DC Blocking Voltage	$V_R$								
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>	8					Α		
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave					150				Α
Non-Repetitive Peak Surge Current @ 1ms Square Wave	I <sub>FSM</sub>				300				A
I²t Rating for Fusing @1ms≤t≤8.3ms	l <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
KBJA8005	KBJA8005
KBJA801	KBJA801
KBJA802	KBJA802
KBJA804	KBJA804
KBJA806	KBJA806
KBJA808	KBJA808
KBJA810	KBJA810

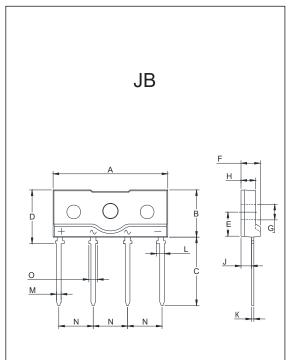
#### **Internal Structure**

Simplified Outline		Graphic Symbol		
MCC XXXXXXX AI	XXXXXX: Marking Code	+ ~ ~ -		

#### 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.

# 8 Amp **Bridge Rectifier** 50 to 1000 Volts



	DIMENSIONS						
DIM	INCHES		M	IM	NOTE		
Dilvi	MIN	MAX	MIN	MAX	NOTE		
Α	0.972	0.996	24.70	25.30			
В	0.394	0.417	10.00	10.60			
С	0.575	0.598	14.60	15.20			
D	0.449	0.472	11.40	12.00			
Е	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			
Н	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			
М	0.035	0.043	0.90	1.10			
N	0.287	0.303	7.30	7.70			
0	0.083	0.091	2.10	2.30			



# Thermal characteristics

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
T <sub>J</sub>	Operating Junction Temperature Range		-55		150	°C
T <sub>stg</sub>	Storage Temperature Range		-55		150	°C
Rth <sub>(J-C)</sub>	Thermal Resistance from Junction to Case	Note 1		2.8		°C/W
Rth <sub>(J-A)</sub>	Thermal Resistance from Junction to Ambient	Without Heatsink		28		°C/W

Note:

# **Mechanical Data**

Recommended Mounting Torque: 0.5 N·m

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

Parameter	Symbol	Test Conditions	Min	Тур	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 $V_R;T_J=25^{\circ}C$ at Rated $V_R;T_J=125^{\circ}C$			5 100	uA
Junction Capacitance	СЈ	V <sub>R</sub> =4V;f=1MHz;T <sub>J</sub> =25°C		50		pF

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<sup>1.</sup>Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.



### **Curve Characteristics**

Fig. 1 - Forward Current Derating Curve 10 With Heatsink 8 Average Forward Current (A) 0 6 0 0 25 50 75 100 125 150 Case Temperature (°C)

Fig. 2 - Maximum Non-Repetitive Peak Forward Surge

Current

150

150

8.3 ms Single Half Sine-Wave

Number of Cycles at 60 Hz

Fig. 3 - Typical Forward Characteristics

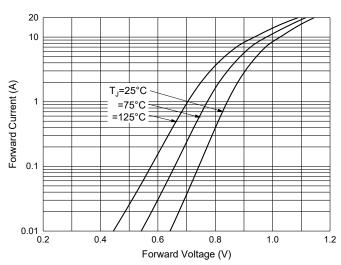


Fig. 4 - Typical Reverse Leakage Characteristics

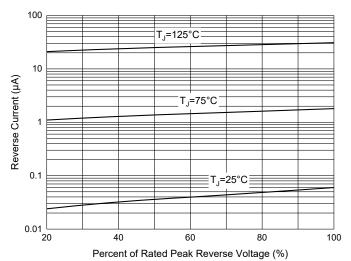
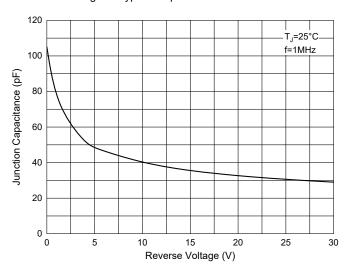


Fig. 5 - Typical Capacitance Characteristics





## **Ordering Information**

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

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