

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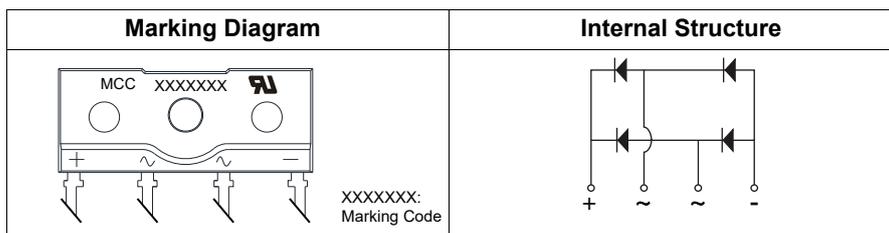
**Features**

- 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)**

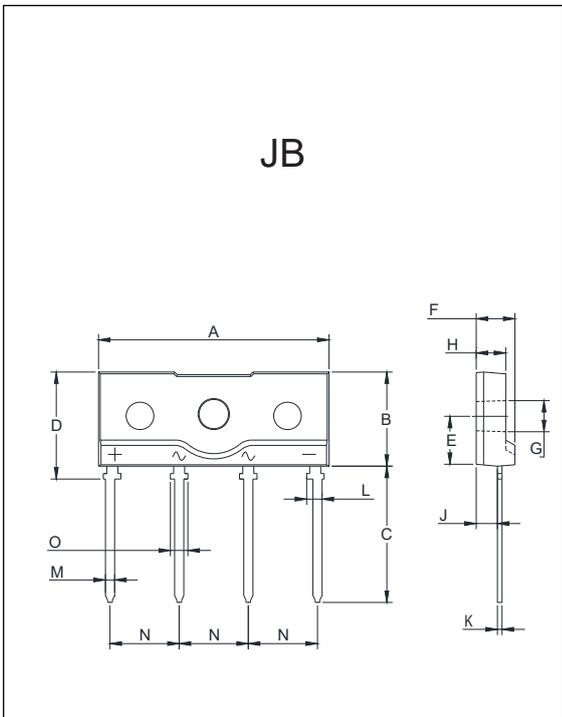
Parameter	Symbol	Value							Unit
		KBJA 4005	KBJA 401	KBJA 402	KBJA 404	KBJA 406	KBJA 408	KBJA 410	
Peak Repetitive Reverse Voltage	$V_{RRM}$								V
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000	
DC Blocking Voltage	$V_R$								
RMS Reverse Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Average Rectified Forward Current @ $T_C=120^\circ C$	$I_{F(AV)}$	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 @ $1ms \leq t \leq 8.3ms$	$I^2t$	75.6							$A^2s$
Dielectric strength @ Terminals to Case, AC 1 Minute	$V_{dis}$	2							KV

Part Number	Marking Code
KBJA4005	KBJA4005
KBJA401	KBJA401
KBJA402	KBJA402
KBJA404	KBJA404
KBJA406	KBJA406
KBJA408	KBJA408
KBJA410	KBJA410



- 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



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		3.5		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Without Heatsink		30		°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	$V_F$	$I_F=2A; T_J=25^\circ C$			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	uA
Junction Capacitance	$C_J$	$V_R=4V; f=1MHz; T_J=25^\circ C$		40		pF

**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

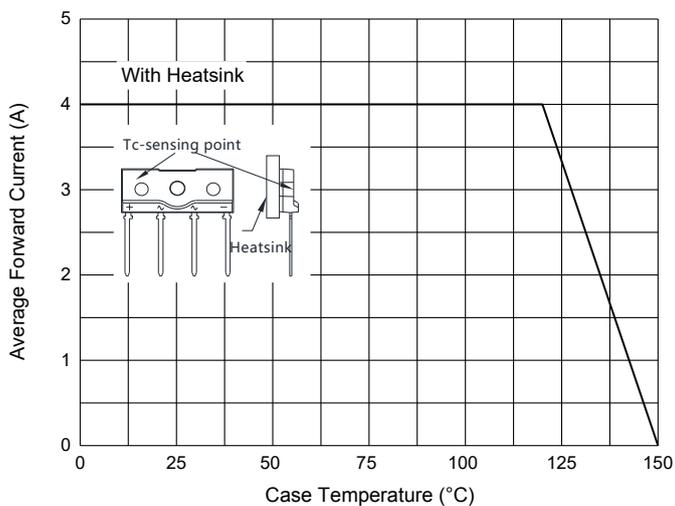


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

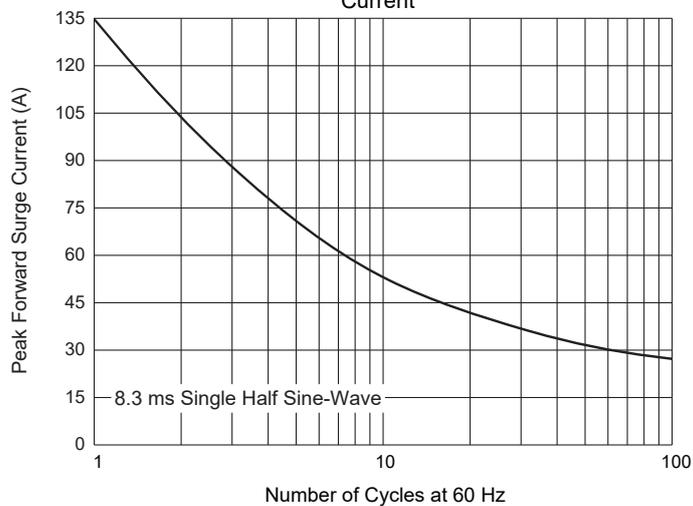


Fig. 3 - Typical Forward Characteristics

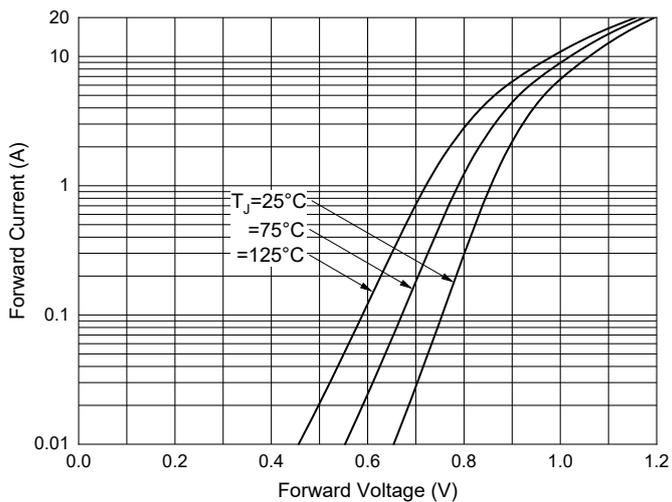


Fig. 4 - Typical Reverse Leakage Characteristics

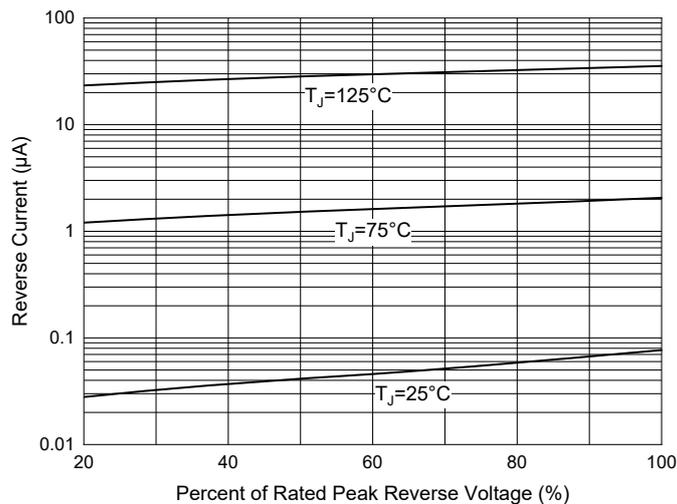
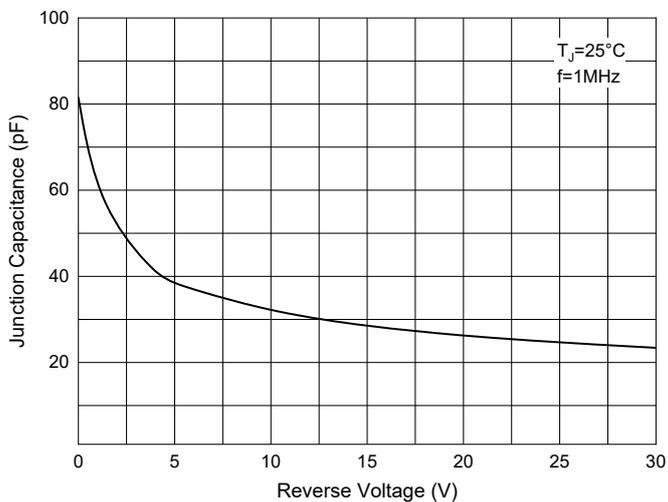


Fig. 5 - Typical Capacitance Characteristics



## Ordering Information

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

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