

	E502650
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Features

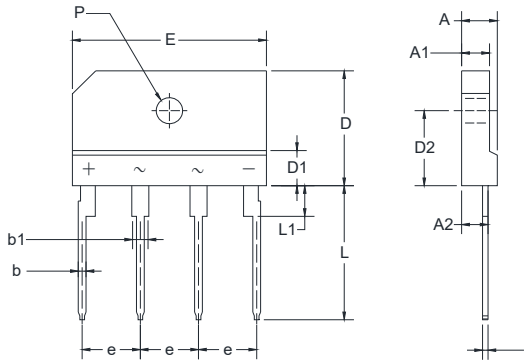
- Halogen Free. "Green" Device (Note 1)
- Glass Passivated Chip Junction
- High Surge Forward Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note 2)("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		KBJ 4005G	KBJ 401G	KBJ 402G	KBJ 404G	KBJ 406G	KBJ 408G	KBJ 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 @ $T_C=110^\circ C$	$I_{F(AV)}$	4							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	150							A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		300							
I^2t Rating for Fusing @ 1ms ≤ t ≤ 8.3ms	I^2t	93							A ² s
Dielectric strength @ Terminals to Case, AC 1 Minute	V_{dis}	2							KV

4 Amp Bridge Rectifier 50 to 1000 Volts

KBJ

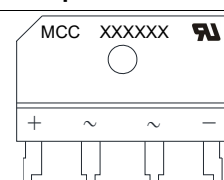
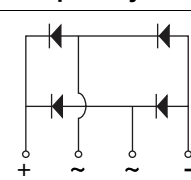


Marking Code

Part Number	Marking Code
KBJ4005G	KBJ4005G
KBJ401G	KBJ401G
KBJ402G	KBJ402G
KBJ404G	KBJ404G
KBJ406G	KBJ406G
KBJ408G	KBJ408G
KBJ410G	KBJ410G

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	∅

Internal Structure

Simplified Outline	Graphic Symbol
 <p>XXXXXX: 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.

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		°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	$I_F=2A; T_J=25^\circ C$			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	μA
Junction Capacitance	C_J	$V_R=4V; f=1MHz; T_J=25^\circ C$		50		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

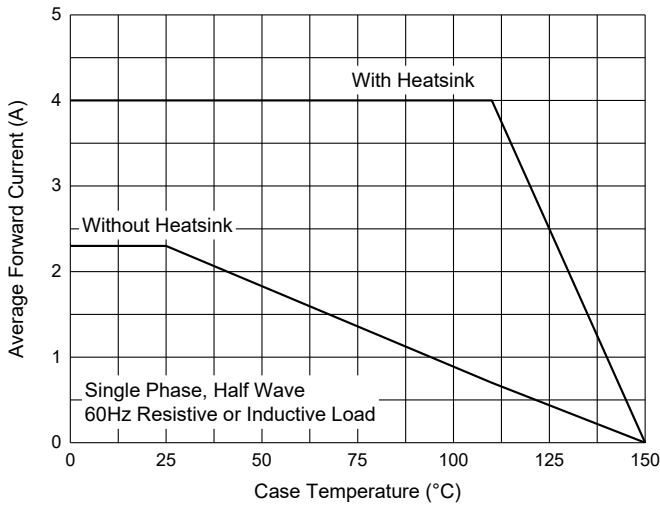


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

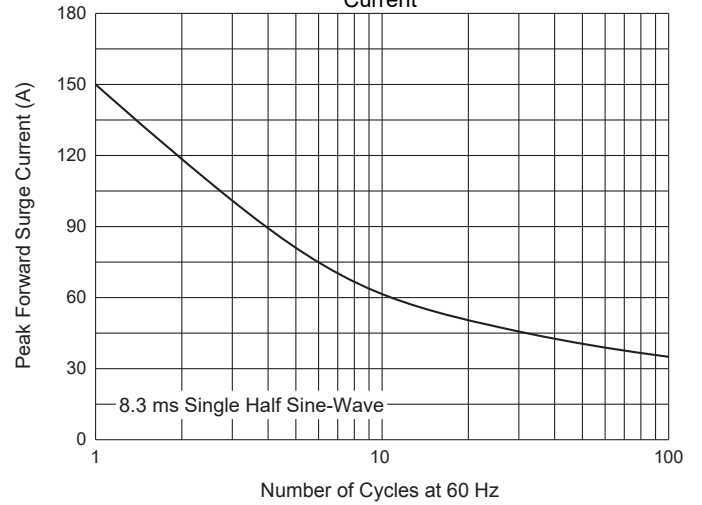


Fig. 3 - Typical Forward Characteristics

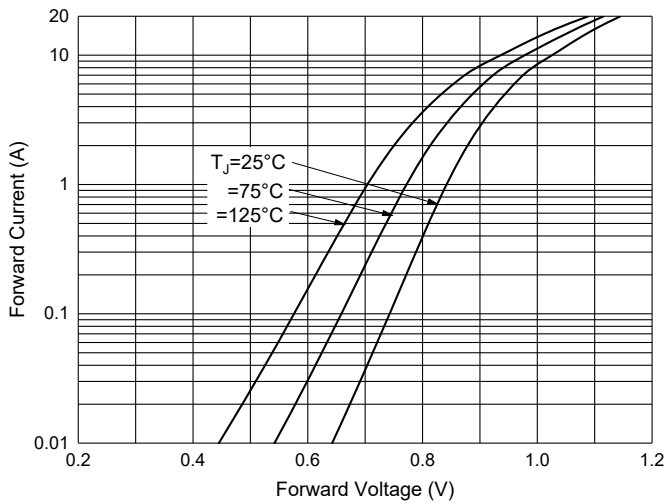


Fig. 4 - Typical Reverse Leakage Characteristics

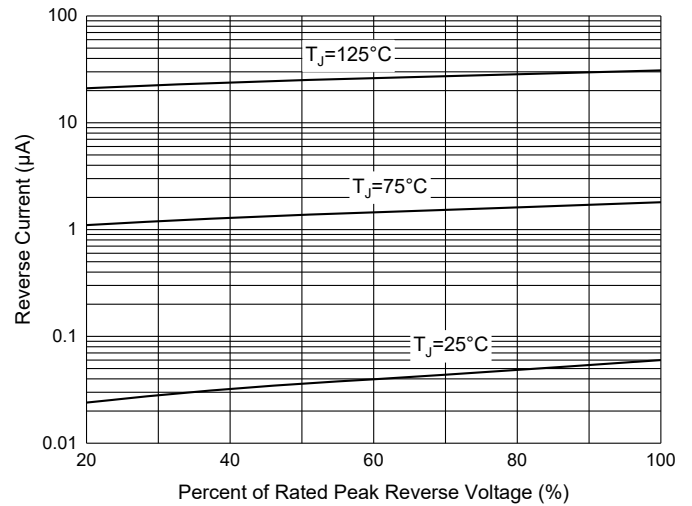
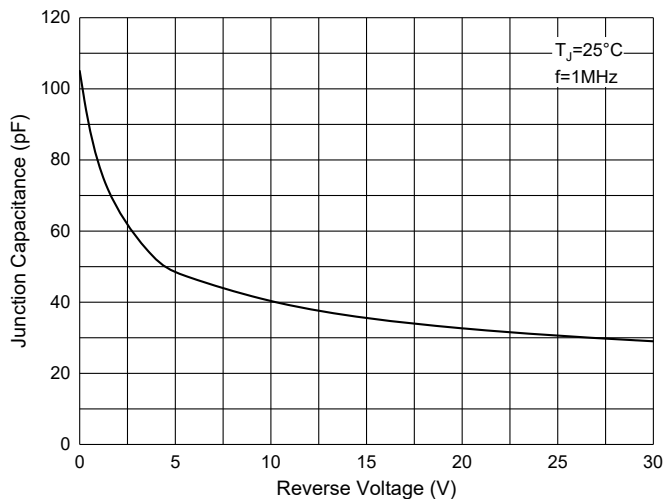


Fig. 5 - Typical Capacitance Characteristics



Ordering Information

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

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