

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

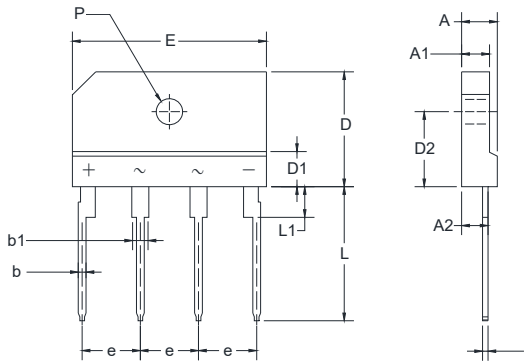
- Halogen Free. "Green" Device (Note 1)
- Glass Passivated Chip Junction
- High Surge Forward Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note 2)("P" Suffix Designates RoHS Compliant. See Ordering Information)

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

Parameter	Symbol	Value							Unit
		KBJ 6005G	KBJ 601G	KBJ 602G	KBJ 604G	KBJ 606G	KBJ 608G	KBJ 610G	
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 @ $T_C=110^\circ C$	$I_{F(AV)}$	6							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	$I_{FSM}$	170							A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		340							
$I^2t$ Rating for Fusing @ 1ms ≤ t ≤ 8.3ms	$I^2t$	120							A <sup>2</sup> s
Dielectric strength @ Terminals to Case, AC 1 Minute	$V_{dis}$	2							KV

# 6 Amp Bridge Rectifier 50 to 1000 Volts

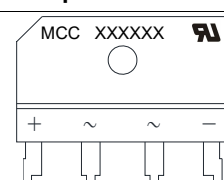
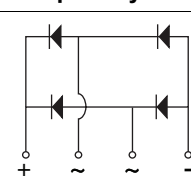
## KBJ



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	∅

**Marking Code**

Part Number	Marking Code
KBJ6005G	KBJ6005G
KBJ601G	KBJ601G
KBJ602G	KBJ602G
KBJ604G	KBJ604G
KBJ606G	KBJ606G
KBJ608G	KBJ608G
KBJ610G	KBJ610G

<p><b>Simplified Outline</b></p>  <p style="font-size: small;">XXXXXX: Marking Code</p>	<p><b>Graphic Symbol</b></p> 
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- 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		1.5		°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	$V_F$	$I_F=3A; T_J=25^\circ C$			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

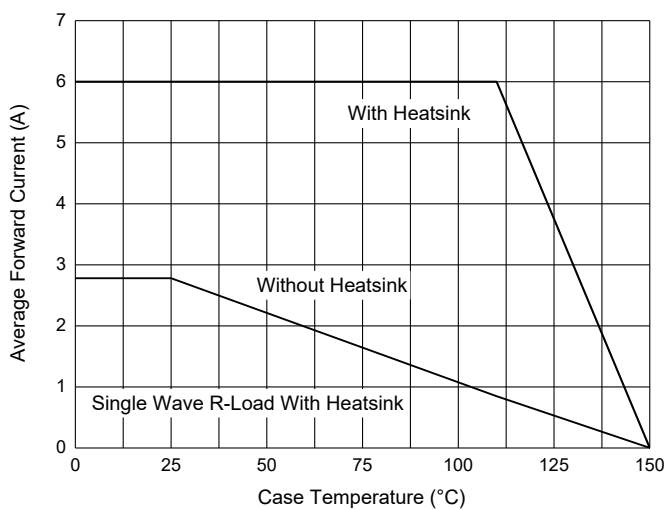


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

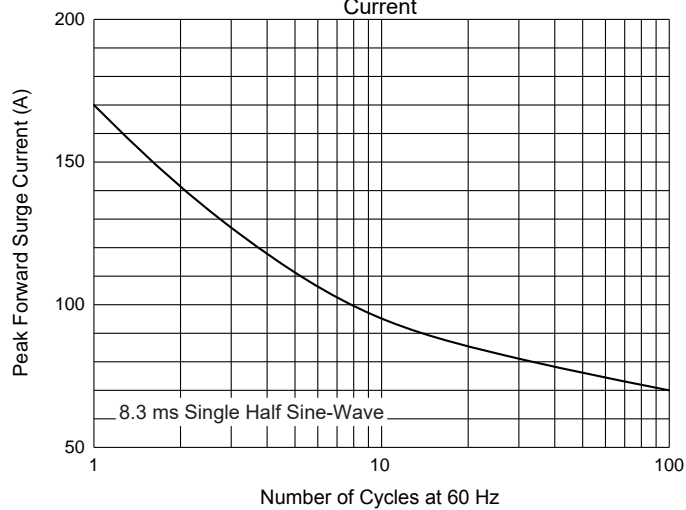


Fig. 3 - Typical Forward Characteristics

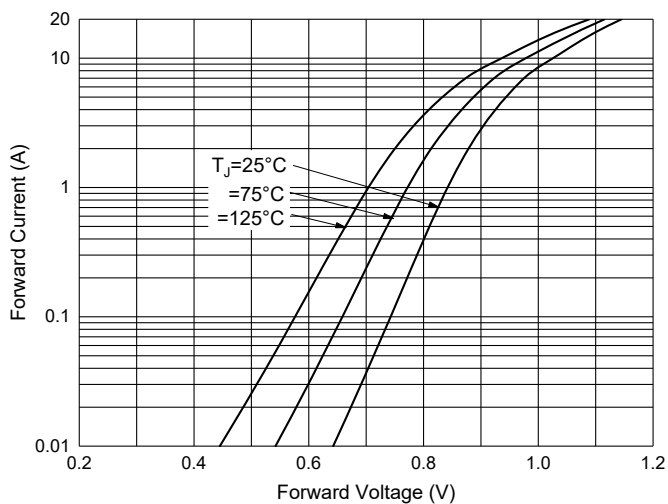


Fig. 4 - Typical Reverse Leakage Characteristics

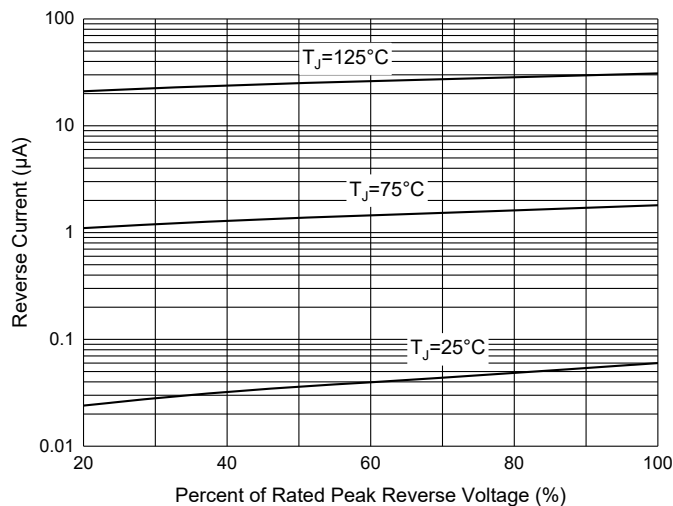
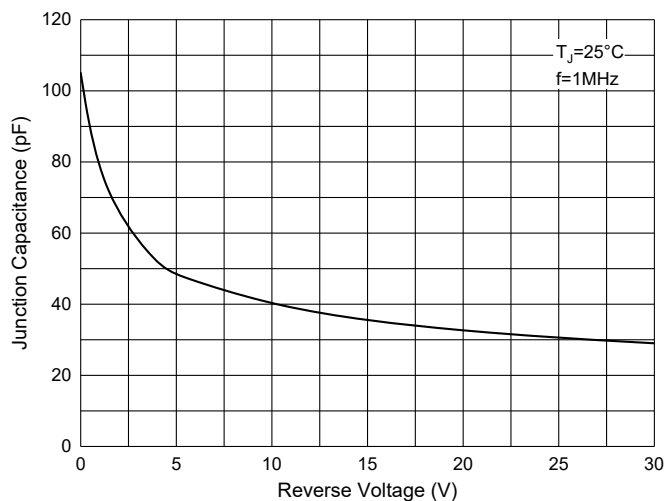


Fig. 5 - Typical Capacitance Characteristics



## Ordering Information

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

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