	E502650

6 Amp Bridge Rectifier 50 to 1000 Volts

Features

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

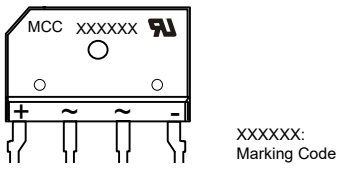
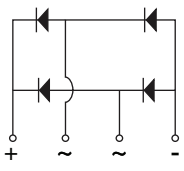
Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		KBJ 6005G	KBJ 601G	KBJ 602G	KBJ 604G	KBJ 606G	KBJ 608G	KBJ 610G	
Peak Repetitive Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V_{RWM}								
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°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^2s
Dielectric strength @Terminals to Case, AC 1 Minute	V_{dis}	2							KV

Marking Code

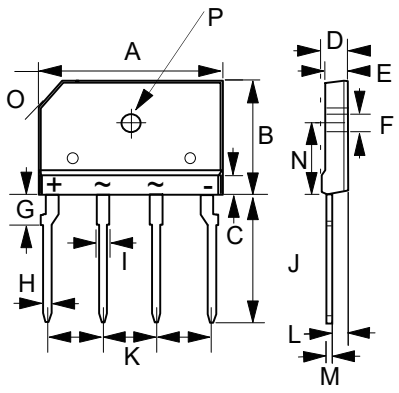
Part Number	Marking Code
KBJ6005G	KBJ6005G
KBJ601G	KBJ601G
KBJ602G	KBJ602G
KBJ604G	KBJ604G
KBJ606G	KBJ606G
KBJ608G	KBJ608G
KBJ610G	KBJ610G

Internal Structure

Simplified Outline	Graphic Symbol
 XXXXXX: Marking Code	

Note:
1.High temperature solder exemption applied, see EU directive annex 7a.

KBJ



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.976	0.992	24.80	25.20	
B	0.579	0.602	14.70	15.30	
C	0.154	0.161	3.90	4.10	
D	0.173	0.189	4.40	4.80	
E	0.134	0.150	3.40	3.80	
F	0.122	0.134	3.10	3.40	Φ
G	0.130	0.146	3.30	3.70	
H	0.035	0.043	0.90	1.10	
I	0.059	0.075	1.50	1.90	
J	0.669	0.709	17.00	18.00	
K	0.287	0.303	7.30	7.70	
L	0.098	0.114	2.50	2.90	
M	0.024	0.031	0.60	0.80	
N	0.366	0.413	9.30	10.50	
O	0.118 X 45°		3.0 X 45°		
P	0.122	0.134	3.10	3.40	Φ

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
$Rth_{(J-C)}$	Thermal Resistance from Junction to Case	Note 1		1.5		°C/W
$Rth_{(J-A)}$	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°C			1.0	V
Reverse Current	I_R	at Rated V_R;T_J=25°C at Rated V_R;T_J=125°C			5 100	μA
Junction Capacitance	C_J	V_R=4V;f=1MHz;T_J=25°C		50		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

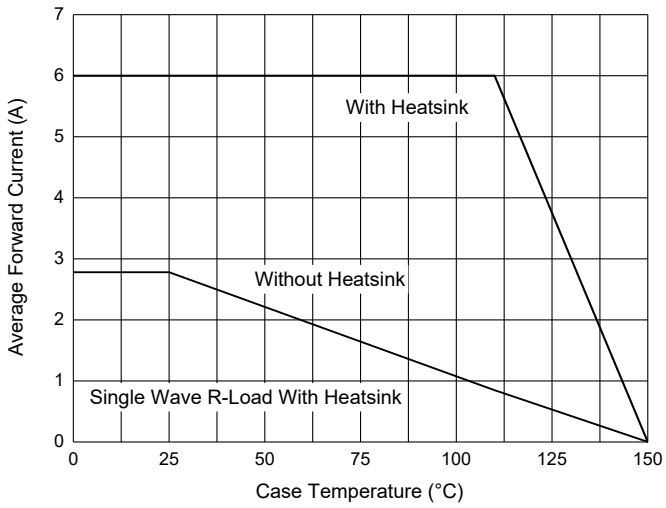


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

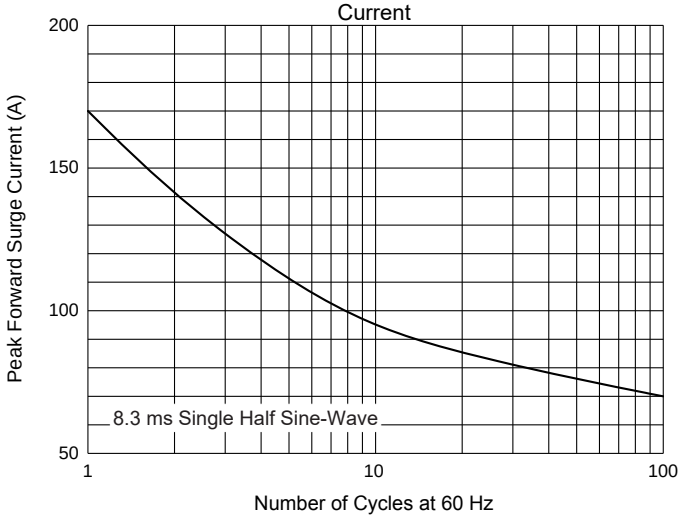


Fig. 3 - Typical Forward Characteristics

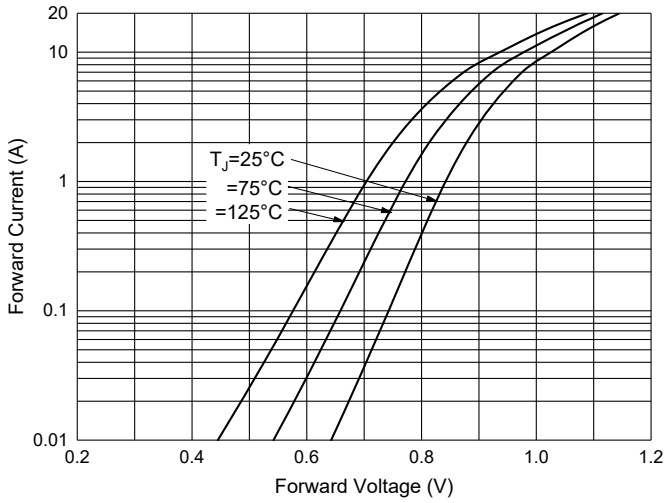


Fig. 4 - Typical Reverse Leakage Characteristics

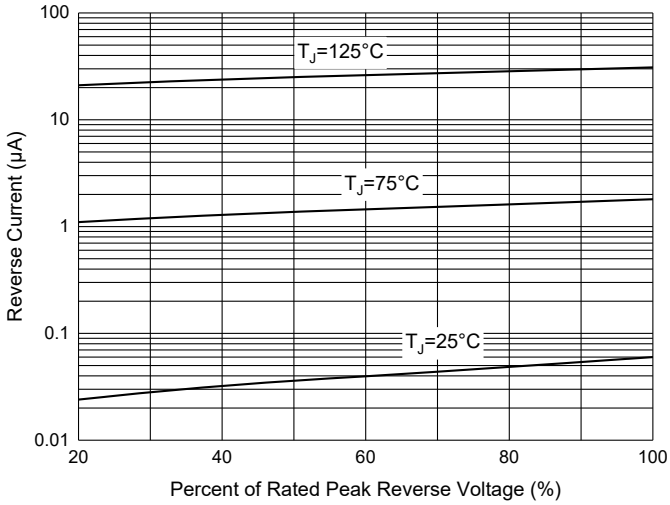
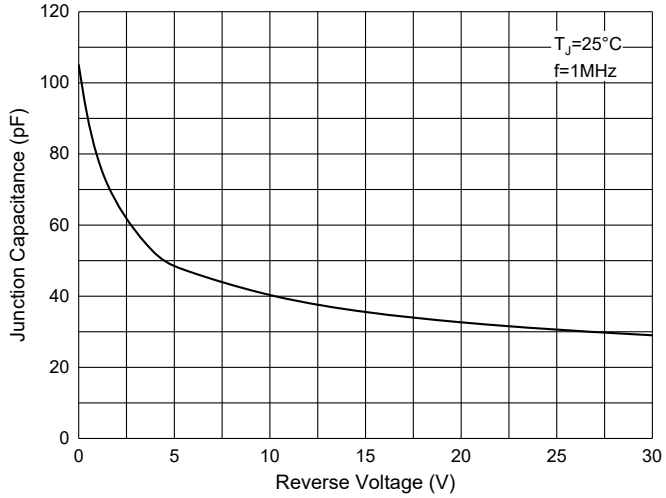


Fig. 5 - Typical Capacitance Characteristics



Ordering Information

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

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-BP-HF