

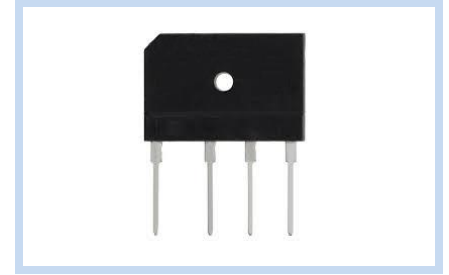
Single-Phase Bridge Rectifier 6.0A KBJ6 Package

KBJ6 Series

MERITEK

FEATURE

- Operating Temperature: -55 ~ +150°C
- Average Forward Rectified Output Current 6.0A
- Repetitive Reverse Voltage from 50~1000V
- Surge Overload Ratings to 170A
- Flammability Classification 94V-0
- UL Safety Approved: Certification No: E223027



MAXIMUM RATINGS AND THERMAL CHARACTERISTICS



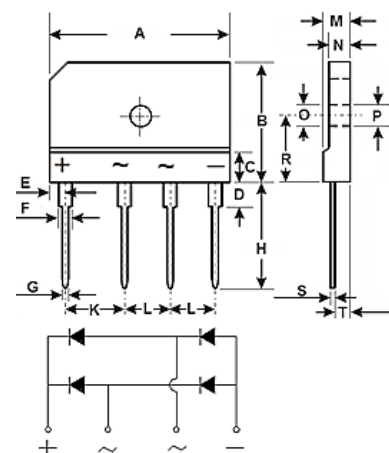
Parameter	Code	KBJ 6005	KBJ 601	KBJ 602	KBJ 604	KBJ 606	KBJ 608	KBJ 610	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Output Current	I_F	6.0, $T_C=110^\circ\text{C}$ with heatsink							A
		2.8, $T_C=110^\circ\text{C}$ without heatsink							
Peak Forward Surge Current Single Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	170							A
Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	120							A^2sec
Maximum Instantaneous Forward Voltage Drop per Diode	V_F	1.0, $I_F=3.0\text{A}$							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Element	I_R	5.0, $T_A=25^\circ\text{C}$							μA
	I_R	500, $T_A=125^\circ\text{C}$							μA
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55~150							$^\circ\text{C}$
Maximum Thermal Resistance	$R_{\theta JC}$	1.8							$^\circ\text{C/W}$

Note:

1. Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz. For Capacitive load derate current by 20%.
2. Device mounted on 250mm x250mm x20mm aluminum plate heatsink.
3. Thermal resistance from junction to ambient on P.C. board mounting.

DIMENSION AND PIN CONFIGURATION

Item	Min. (mm)	Max. (mm)	Item	Min. (mm)	Max. (mm)
A	29.70	30.30	L	7.30	7.70
B	19.70	20.30	M	4.40	4.80
C	5.0 TYP.		N	3.40	3.80
D	3.80	4.20	O	3.00	3.40
E	2.30	2.70	P	3.30	3.70
F	2.00	2.40	R	10.80	11.20
G	0.90	1.10	S	0.60	0.80
H	17.00	18.00	T	2.50	2.90
K	9.80	10.20			



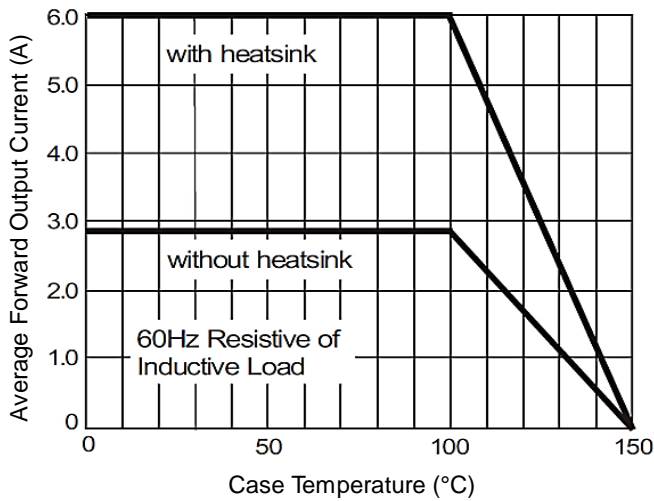
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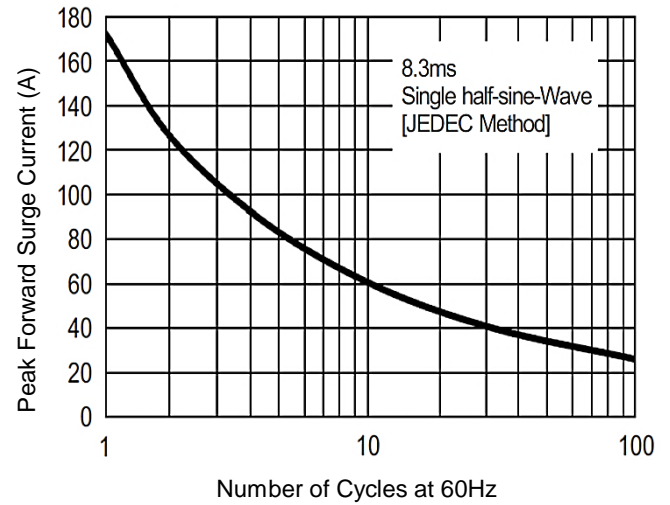
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RATING AND CHARACTERISTIC CURVES

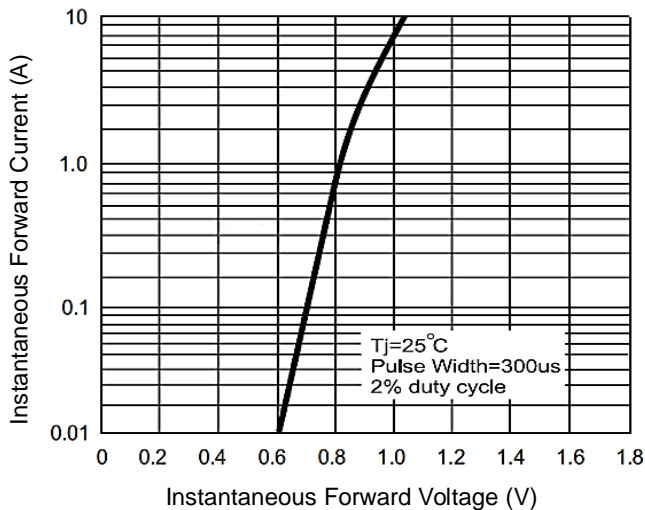
Derating Curve for Output Rectified Current



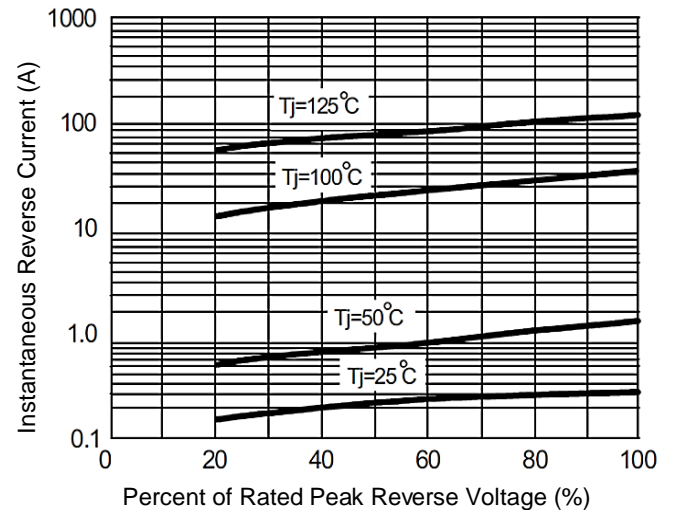
Maximum Non-Repetitive Peak Forward Surge Current



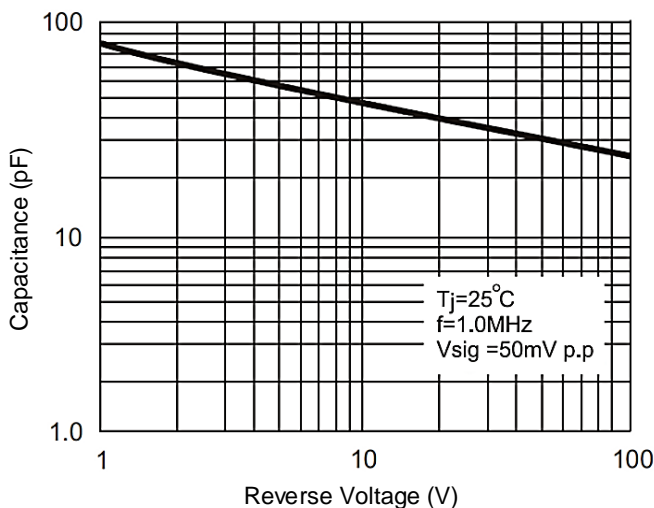
Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics at $T_j=25^\circ\text{C}$



Typical Junction Capacitance



*Specifications subject to change without notice.