

Single-Phase Bridge Rectifier 6.0A KBPC6 Package

KBPC6 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 125A
- Typical I_R Less Than 0.1 μ A
- Through Hole Mounting for #6 Screw
- Flammability Classification 94V-0
- UL Safety Approved: Certification No: E223027



MAXIMUM RATINGS AND THERMAL CHARACTERISTICS



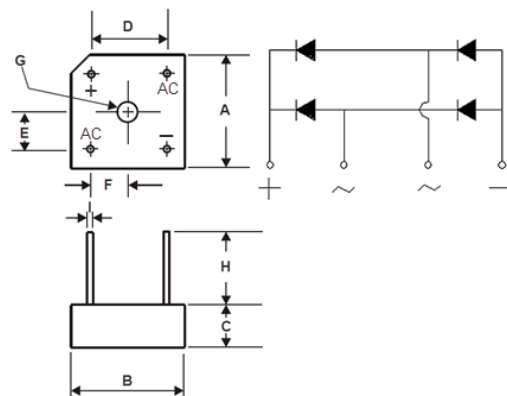
Parameter	Code	KBPC 6005	KBPC 601	KBPC 602	KBPC 604	KBPC 606	KBPC 608	KBPC 610	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Output Current	$I_{F(AV)}$	6.0, $T_C=75^\circ\text{C}$							A
Peak Forward Surge Current Single Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	125							A
Rating for Fusing ($t \leq 8.3\text{ms}$)	I^2t	10							A^2sec
Maximum Instantaneous Forward Voltage Drop per Diode	V_F	1.1, $I_F=3.0\text{A}$							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Element	I_R	10, $T_A=25^\circ\text{C}$							μA
	I_R	1000, $T_A=100^\circ\text{C}$							μA
Typical Junction Capacitance per Element	C_j	55.0							pF
Operating Junction and Storage Temperature	T_J, T_{STG}	-55~150							$^\circ\text{C}$
Typical Thermal Resistance per Element	$R_{\theta JA}$	9.4							$^\circ\text{C/W}$

Note:

1. Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz. For Capacitive load derate current by 20%.
2. Mounted on metal chassis.
3. Non-repetitive, for $t > 1\text{ms}$ and $< 8.3\text{ms}$.
4. Measured at 1.0MHz and applied reverse voltage of 4.0 VDC.

DIMENSION AND PIN CONFIGURATION

Item	Min. (mm)	Max. (mm)
A	14.73	15.75
B	14.73	15.75
C	5.84	6.86
D	10.3	11.3
E	1.7	2.7
F	1.7	2.7
G	DIA. 3.6	DIA. 4.0
H	19.0	-
I	1.02 TYP.	



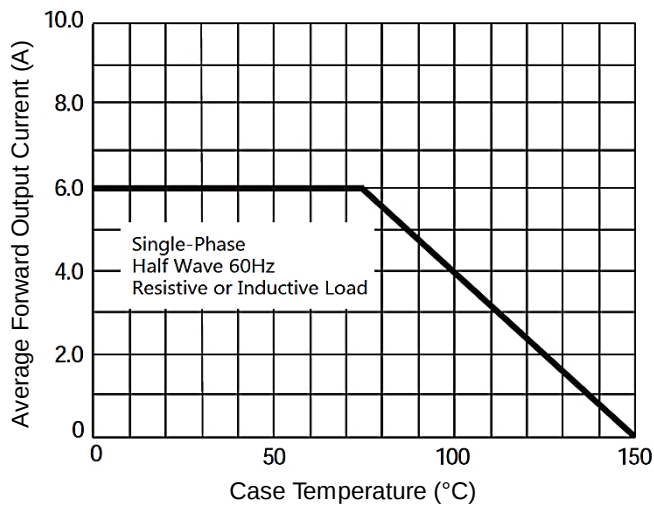
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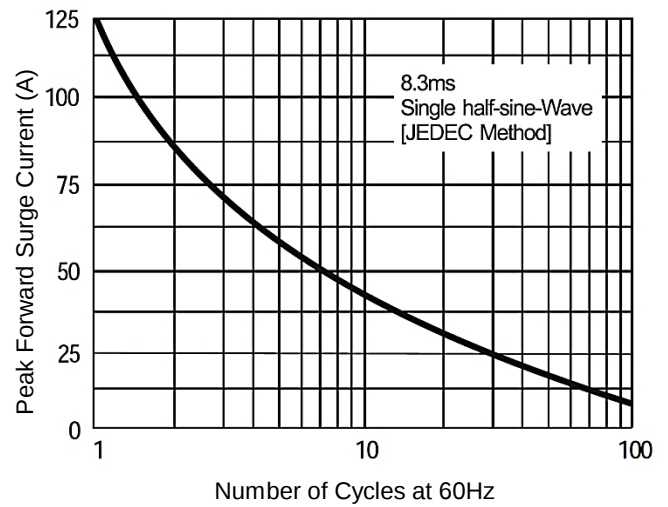
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RATING AND CHARACTERISTIC CURVES

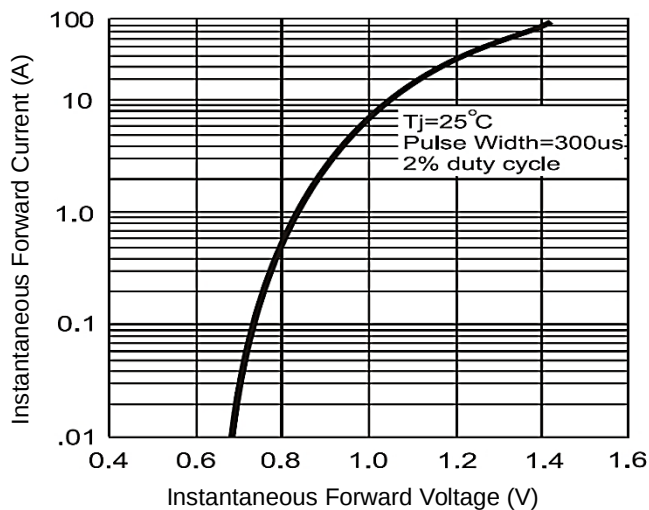
Derating Curve for Output Rectified Current



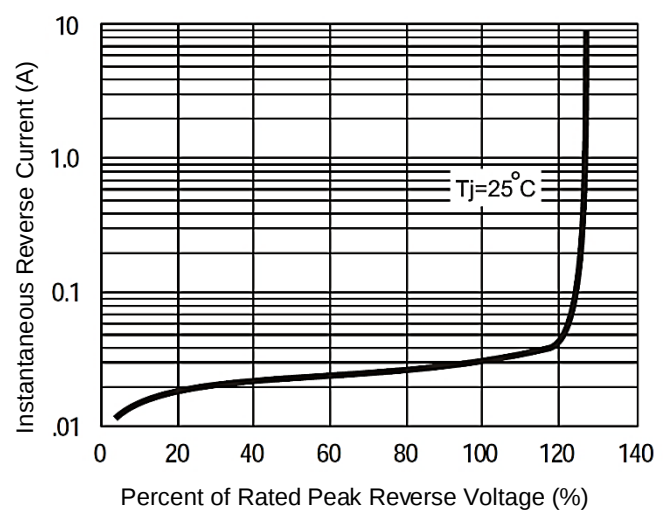
Maximum Non-Repetitive Peak Forward Surge Current



Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics at T_j=25°C



*Specifications subject to change without notice.