

Single-Phase Bridge Rectifier 3.0A KBPC1 Package

KBPC1 Series

MERITEK

FEATURE

- Operating Temperature: -55 ~ +150°C
- Average Forward Rectified Output Current 3.0A
- Repetitive Reverse Voltage from 50~1000V
- Surge Overload Ratings to 50A
- Typical I_R Less Than 0.1μA
- Through Hole Mounting for #6 Screw
- Flammability Classification 94V-0
- UL Safety Approved: Certification No: E223027



MAXIMUM RATINGS AND THERMAL CHARACTERISTICS

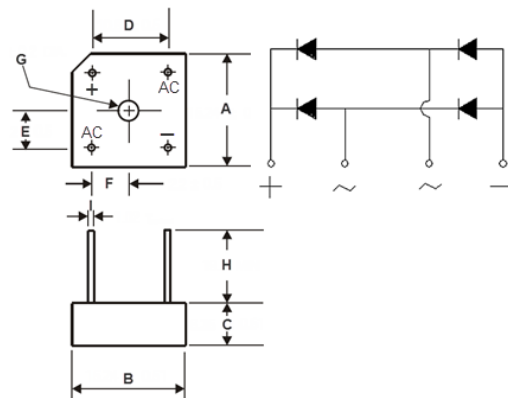


Parameter	Code	KBPC 1005	KBPC 101	KBPC 102	KBPC 104	KBPC 106	KBPC 108	KBPC 110	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Output Current	$I_{F(AV)}$	3.0, $T_C=50^\circ C$							A
Peak Forward Surge Current Single Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50							A
Rating for Fusing ($t < 8.3ms$)	I^2t	10							A ² sec
Maximum Instantaneous Forward Voltage Drop per Diode	V_F	1.1, $I_F=1.5A$							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Element	I_R	10, $T_A=25^\circ C$							μA
	I_R	1000, $T_A=100^\circ C$							μA
Typical Junction Capacitance per Element	C_j	55.0							pF
Operating Junction and Storage Temperature	T_J, T_{STG}	-55~150							°C
Typical Thermal Resistance per Element	$R_{\theta JA}$	9.4							°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 $t > 1ms$ and $< 8.3ms$.
 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	0.78 TYP.	



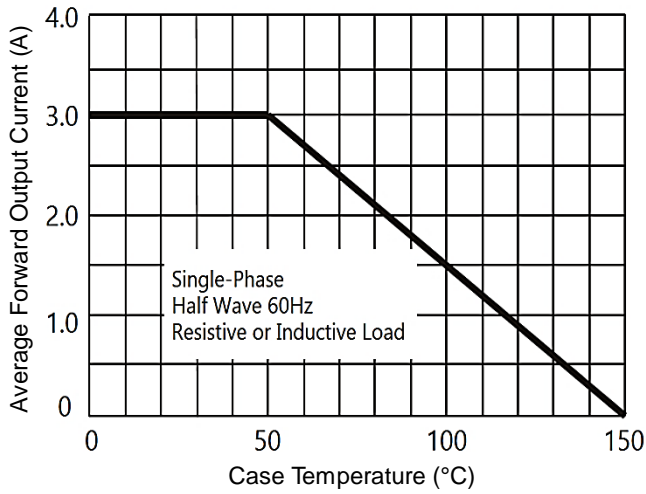
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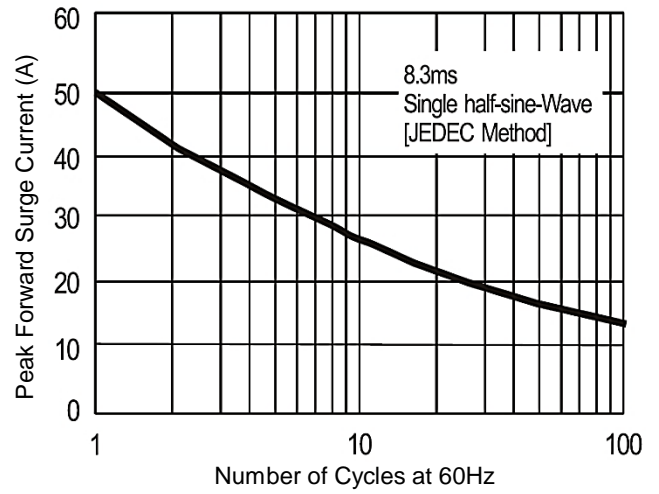
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RATING AND CHARACTERISTIC CURVES

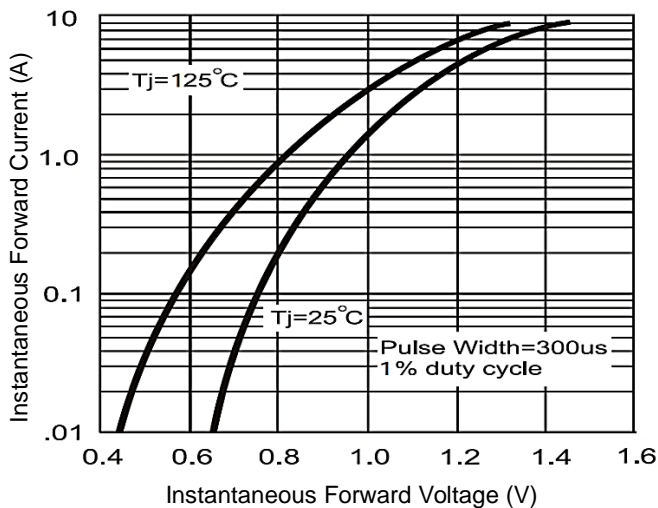
Derating Curve for Output Rectified Current



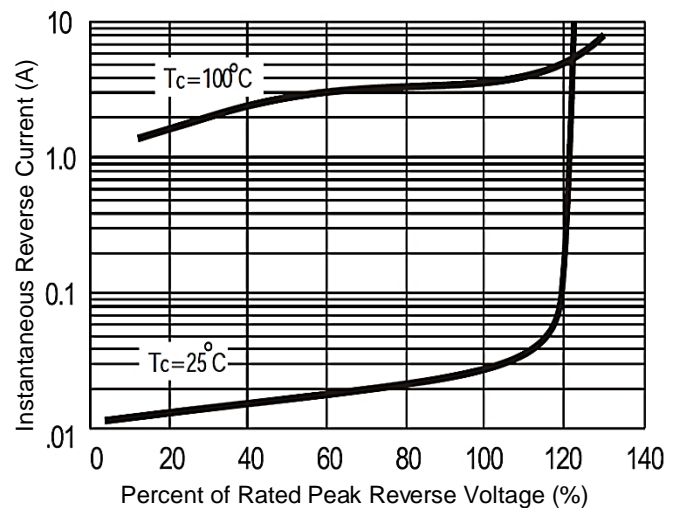
Maximum Non-Repetitive Peak Forward Surge Current



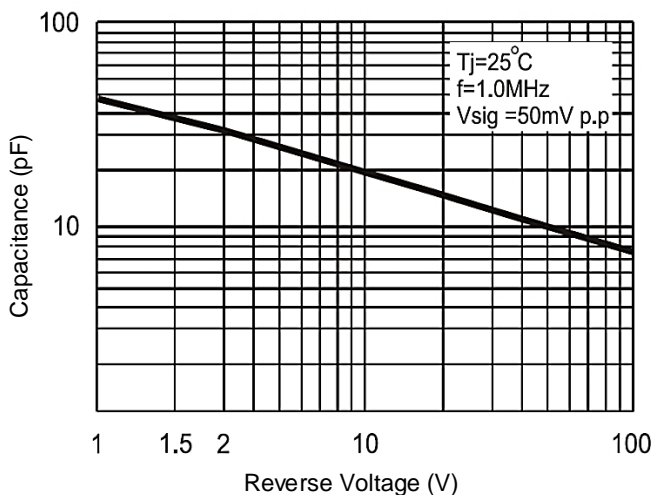
Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics at Tj = 25°C



Typical Junction Capacitance



*Specifications subject to change without notice.