

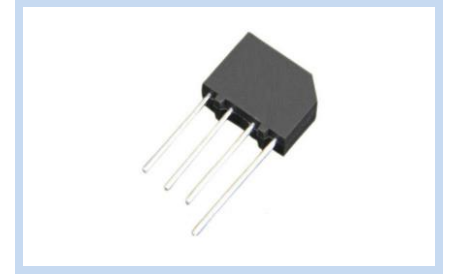
# Single-Phase Bridge Rectifier 1.5A KBP Package

KBP Series

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## FEATURE

- Operating Temperature: -55 ~ +150°C
- Average Forward Rectified Output Current 1.5A
- Repetitive Reverse Voltage from 50~1000V
- Surge Overload Ratings to 50A
- Flammability Classification 94V-0
- UL Safety Approved: Certification No: E223027



## MAXIMUM RATINGS AND THERMAL CHARACTERISTICS

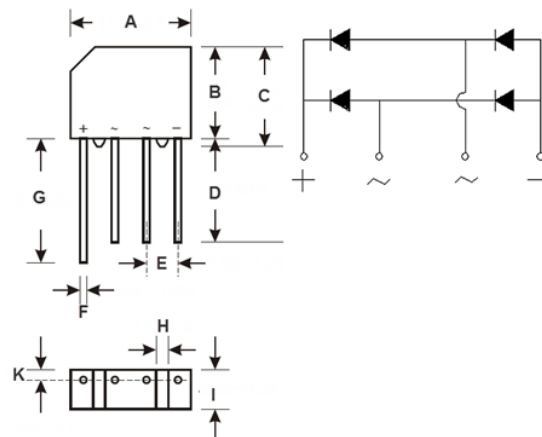


Parameter	Code	KBP 005	KBP 01	KBP 02	KBP 04	KBP 06	KBP 08	KBP 10	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Output Current	$I_F$	1.5, $T_A=50^\circ\text{C}$							A
Peak Forward Surge Current Single Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	50							A
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	15							$\text{A}^2\text{sec}$
Maximum Instantaneous Forward Voltage Drop per Diode	$V_F$	1.1, $I_F=1.5\text{A}$							V
Maximum DC Reverse Current at Rated DC blocking Voltage per Element	$I_R$	10, $T_A=25^\circ\text{C}$							$\mu\text{A}$
	$I_R$	500, $T_A=125^\circ\text{C}$							$\mu\text{A}$
Typical Junction Capacitance per Element	$C_j$	25.0							pF
Operating Junction and Storage Temperature	$T_J, T_{STG}$	-55~150							$^\circ\text{C}$
Typical Thermal Resistance per Element	$R_{\theta JA}$	10							$^\circ\text{C/W}$

- Note:**
1. Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz. For Capacitive load derate current by 20%.
  2. Thermal resistance from Junction to Ambient on P.C. board mounting.
  3. Measured at 2.0MHz and applied reverse voltage of 4.0 volts.

## DIMENSION AND PIN CONFIGURATION

Item	Min. (mm)	Max. (mm)
A	14.2	15.2
B	10.7	11.7
C	11.7	12.7
D	12.7	-
E	3.60	4.10
F	0.76	0.86
G	15.2	-
H	1.30	1.70
I	4.58	5.08
K	1.15	1.35



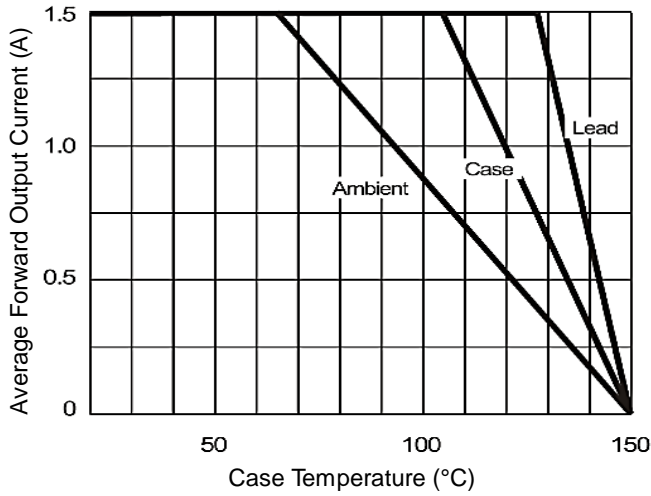
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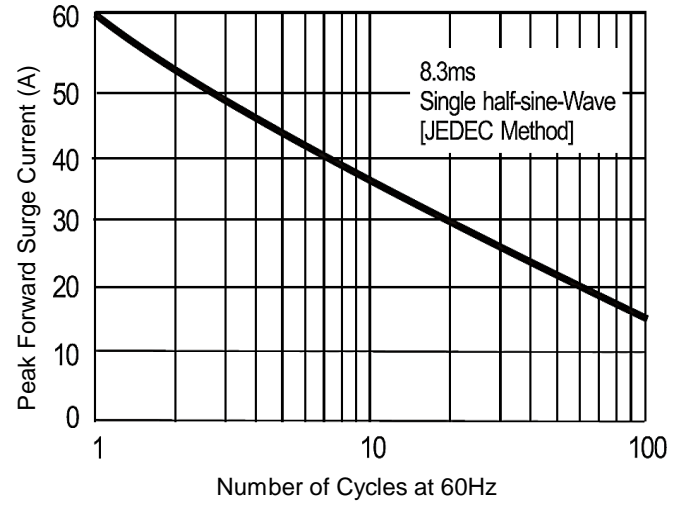
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## RATING AND CHARACTERISTIC CURVES

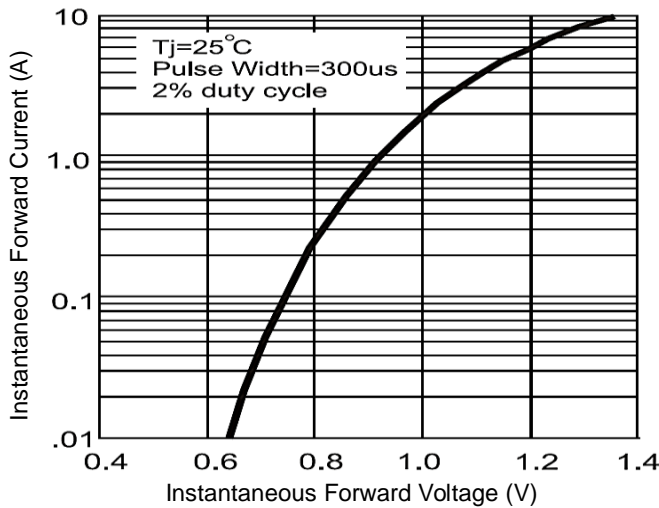
Derating Curve for Output Rectified Current



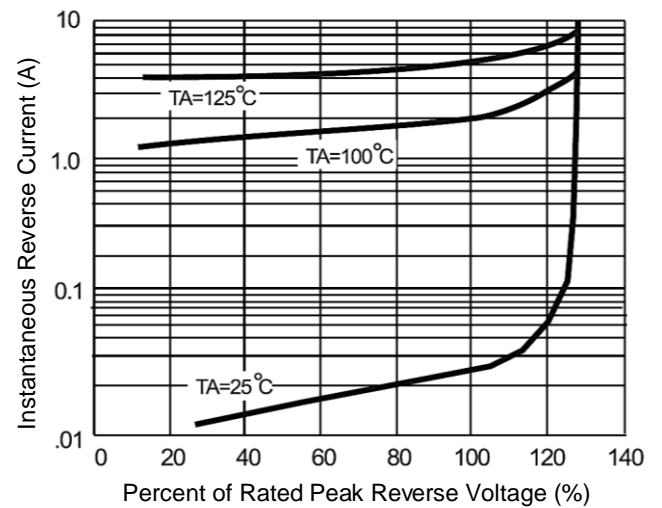
Maximum Non-Repetitive Peak Forward Surge Current



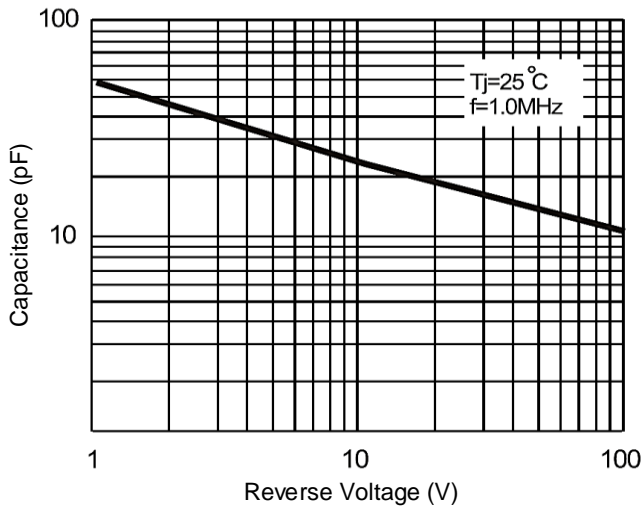
Typical Instantaneous Forward Characteristics



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



Typical Junction Capacitance



\*Specifications subject to change without notice.