RBP2005 thru RBP210

2.0A, Fast Recovery Glass Passivated Bridge Rectifier

Rectifier Reverse Voltage 50 to 1000V

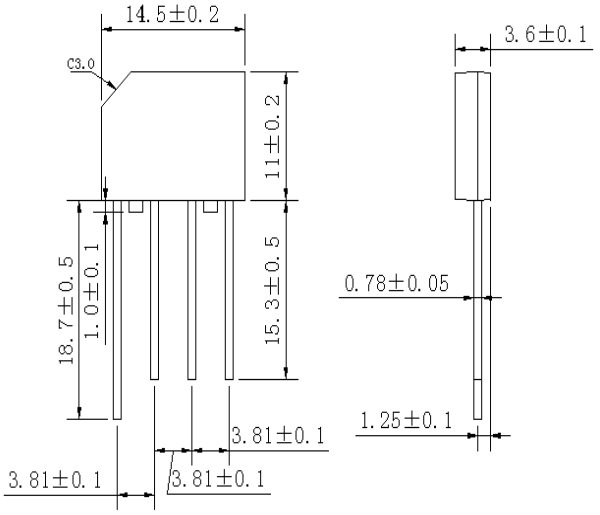
KBP

Features

- This series is UL listed under the Recognized Component Index, file number E484648
- Ideal for printed circuit board mounting
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Built-in printed circuit board stand-offs
- High case dielectric strength
- High temperature soldering guaranteed 265°C /10 seconds at 5 lbs (2.3kg) tension

Mechanical Data

Case: Reliable low cost construction utilizing molded plastic technique
Terminals: Plated leads solderable per MIL-STD-202, Method 208
Mounting Position: Any



Dimensions in millimeters (1mm =0.0394")

Maximum Ratings & Thermal Characteristics

Rating at 25° ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
For Capacitive load dera

Parameter	Symbol	RKBP 2005	RKBP 201	RKBP 202	RKBP 204	RKBP 206	RKBP 208	RKBP 210	unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at TA=100°C (with heatsink)	IF(AV)	2.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	30							A
Rating for fusing (t<8.3ms)	I^2t	9.12							A^2sec
Maximum reverse recovery time (Note 2)	t_{rr}	150				250		500	ns
Operating junction and storage temperature range	TJ, TSTG	-55 to + 150							℃

Electrical Characteristics

Rating at 25° ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
For Capacitive load derate by 20 %.

Parameter	Symbol	RKBP 2005	RKBP 201	RKBP 202	RKBP 204	RKBP 206	RKBP 208	RKBP 210	Unit
Maximum instantaneous forward voltage drop per leg at 2.0A	VF	1.3							V
DC blocking voltage per element TA =125°C / °C	IR	10 500							μA

Notes: (1)Thermal resistance from Junction to Ambemt on P.C.board mounting.
(2)Measured at 2.0MHz and applied reverse voltage of 4.0 volts.

Rating and Characteristic Curves (T_A=25 °C Unless otherwise noted)

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Fig. 1 Derating Curve for Output Rectified Current

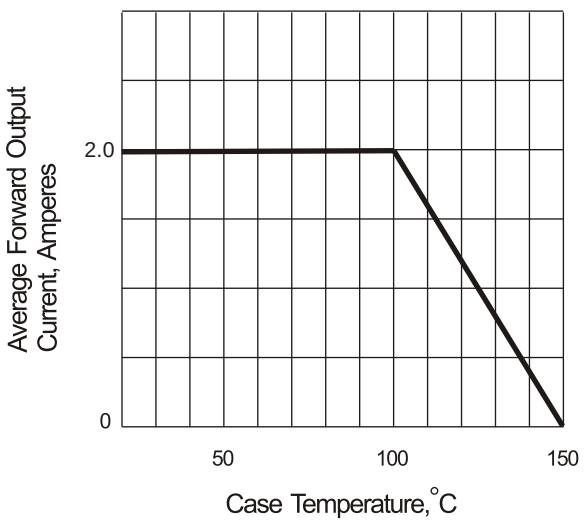

Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

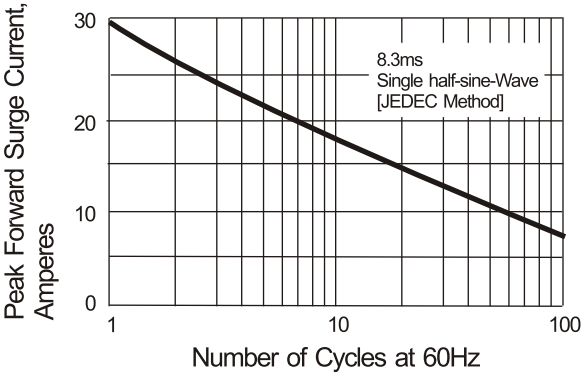

Fig. 3 Typical Instantaneous Forward Characteristics

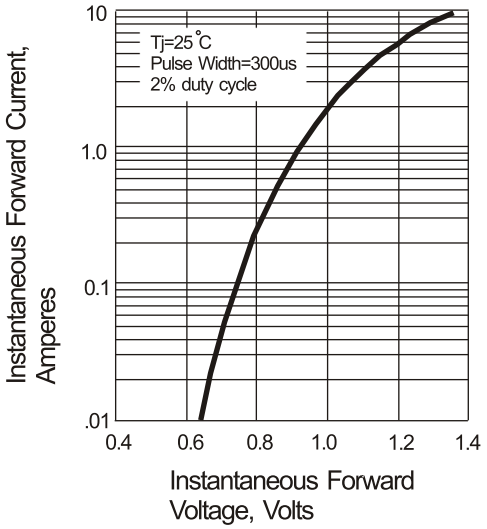

Fig. 4 Typical Reverse Characteristics

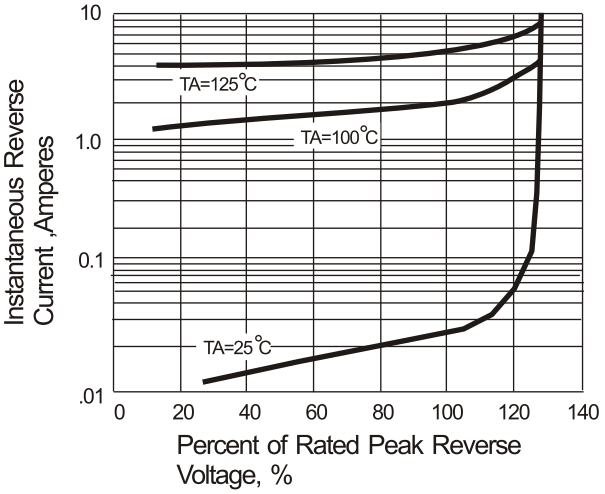

Fig. 5 Typical Junction Capacitance