

Silicon Bridge Rectifiers



KBP200-G thru 2010-G (RoHS Device)

Reverse Voltage: 50 ~ 1000 Volts

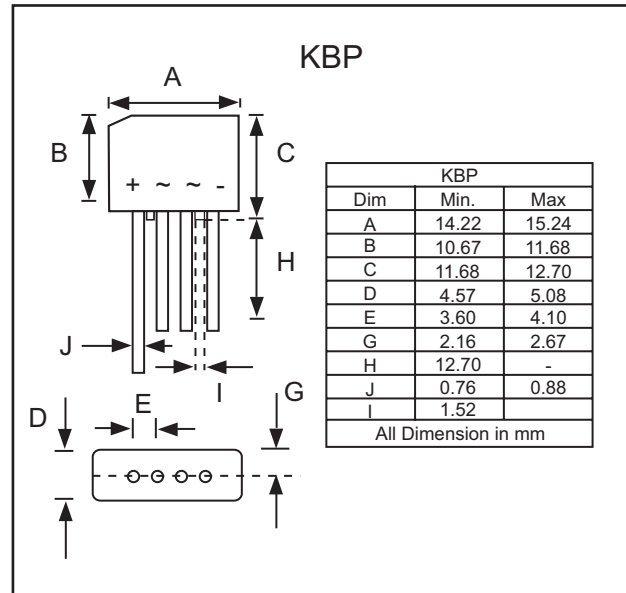
Forward Current: 2.0 Amp

Features:

- Diffused Junction
- Low Forward Voltage Drop
- High Reliability
- High Current Capability
- High Surge Current Capability
- Ideal for Printed Circuit Boards

Mechanical Data:

- Case: Molded Plastic
- Terminals: Plated Leads Solderable Per MIL STD-202, Method 208
- Weight: 1.7 grams (approx.)
- Mounting position: Any



Maximum Ratings and Electrical Characteristics

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate currently by 20%.

Characteristics	Symbol	KBP 200-G	KBP 201-G	KBP 202-G	KBP 204-G	KBP 206-G	KBP 208-G	KBP 2010-G	UNIT
Peak Repetitive Reverse Voltage	V_{RRM}								
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	800	1000	V
DC Blocking Voltage	V_R								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note1) @ $T_A = 50^\circ\text{C}$	I_o	2.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half-sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	60							A
Forward Voltage (per element) @ $I_F=2.0\text{A}$	V_{FM}	1.1							V
Peak Reverse Current @ $T_A=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$	I_{RM}	10 500							μA
Rating for Fusing ($t<8.3\text{ms}$)	I^2t	15							A^2S
Typical Thermal Resistance (Note3)	$R_{\theta JA}$	30							K/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +160							$^\circ\text{C}$
Typical Junction Capacitance per element (Note2)	C_J	25							pF

- Note:
1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.
 3. Thermal resistance junction to ambient mounted on PC board with 12mm² copper pad.

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Rating and Characteristic Curves (KBPP200-G ~ KBP2010-G)

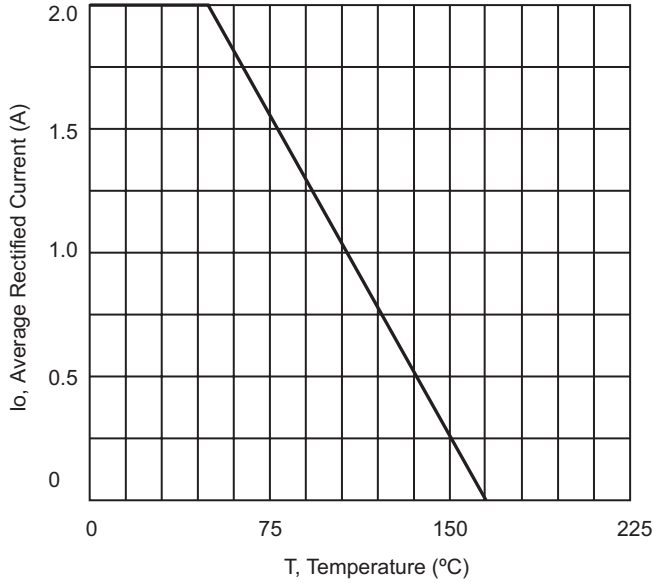


Fig1. Forward Current Derating Curve

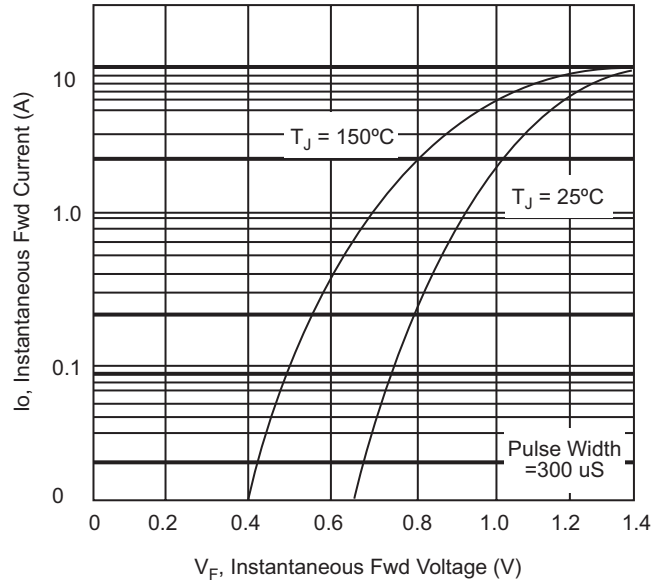


Fig2. Typical Fwd Characteristics

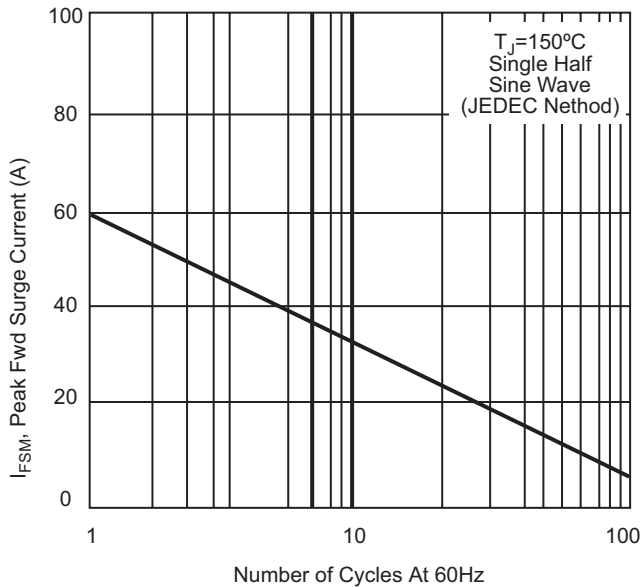


Fig3. Max Non-Repetitive Peak Fwd Surge Current

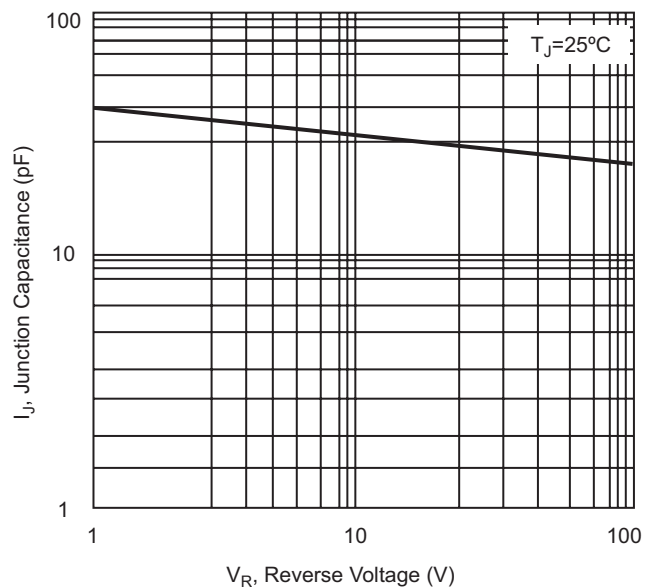


Fig 4. Typical Junction Capacitance



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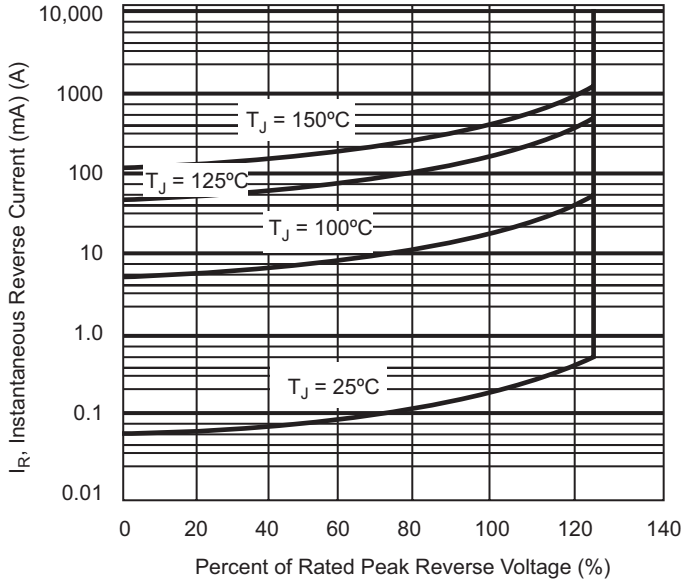


Fig5. Typical Reverse Characteristics