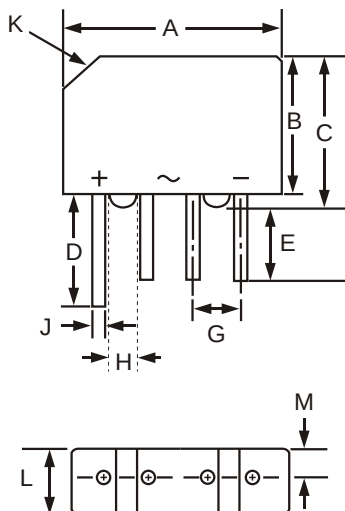


KBP2005 THRU KBP210

SINGLE - PHASE SILICON BRIDGE RECTIFIER
VOLTAGE - 50 TO 1000 VOLTS CURRENT - 2.0 AMPERES



KBP		
Dim	Min	Max
A	14.22	15.24
B	10.67	11.68
C	11.68	12.70
D	15.24	—
E	12.70	—
G	3.56	4.06
H	1.52	—
J	0.71	0.84
K	3.18 X 45° CHAMFER	
L	4.57	5.08
M	2.16	2.67
All Dimensions in mm		

FEATURES

- Surge overload rating - 50 amperes peak
- Ideal for printed circuit board
- High case dielectric strength
- Reliable low cost construction utilizing molded plastic technique
- Plastic package used has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering guaranteed: 260°C/10 seconds at 5lbs. (2.3kg) tension

MECHANICAL DATA

Case: Molded plastic body over passivated junctions
 Terminals: Plated lead solderable per MIL-STD-202, method 208
 Polarity: Polarity symbols marked on body
 Weight: 0.06 ounce, 1.7 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

Sing phase ,half-wave ,60Hz, resistive or inductive load

For capacitive load, derate current by 20%

	SYMBOL	KBP 2005	KBP 201	KBP 202	KBP 204	KBP 206	KBP 208	KBP 210	UNITS
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current T _A = 50°C	I _(AV)	2.0							Amps
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	50							Amps
Maximum Instantaneous Forward Voltage Drop Per Bridge Element at 1.0A	V _F	1.1							Volts
Maximum DC Reverse Current T _A = 25 °C at Rated DC Blocking Voltage T _A = 125 °C	I _R	10 500							μ A
Rating for fusing (t < 8.3ms)	I ² _t	15							A ² s
Typical Junction Capacitance (NOTE 1)	C _J	20							pF
Typical Thermal Resistance (NOTE 2)	R _{θJA}	30							°C/W
	R _{θJL}	11							
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150							°C

NOTES:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 volts.
2. Thermal resistance from junction to ambient and from junction to lead on P.C.B. with 0.47 x 0.47" (12 x 12mm) copper pads

KBP2005 THRU KBP210

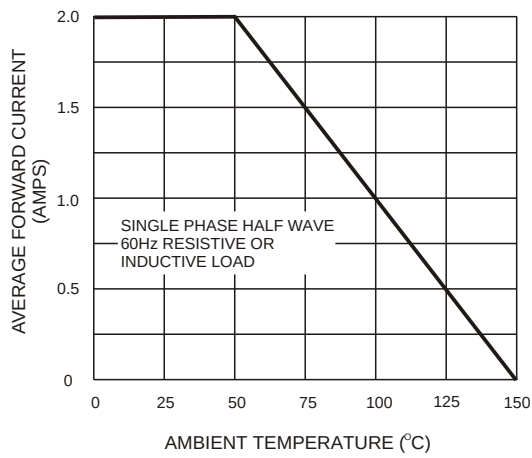


Figure 1. Typical Forward Current Derating Curve

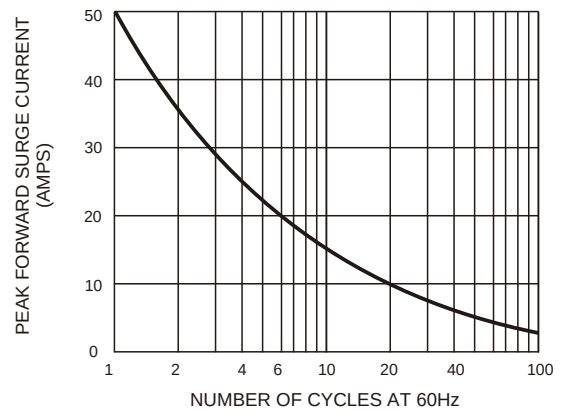


Figure 2. Maximum Non-repetitive Peak Forward Surge Current Per Bridge Element

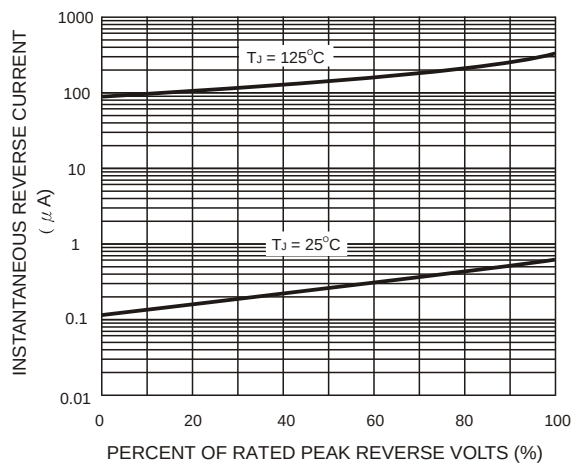


Figure 3. Typical Reverse Leakage Characteristics Per Bridge Element

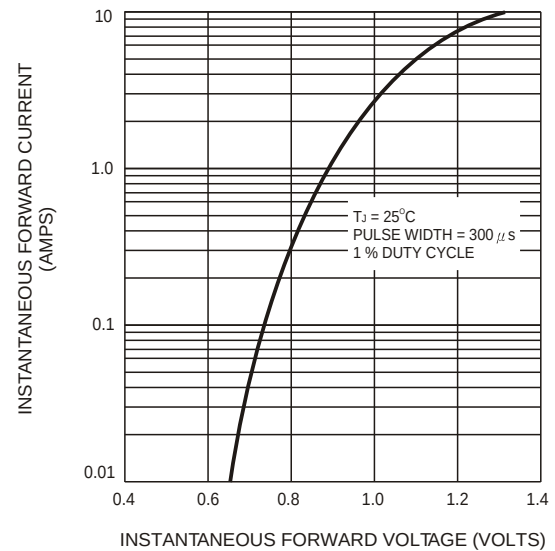


Figure 4. Typical Instantaneous Forward Per Bridge Element

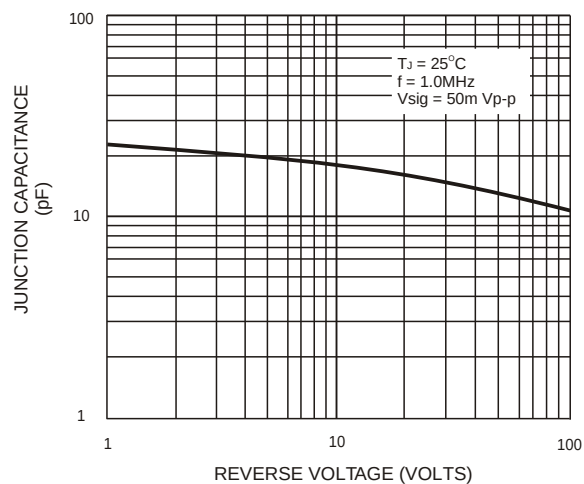


Figure 5. Typical Junction Capacitance per Bridge Element