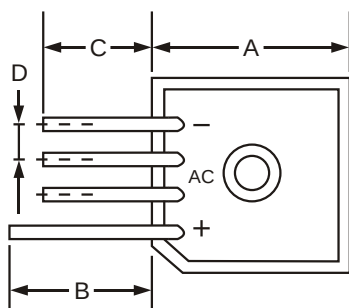
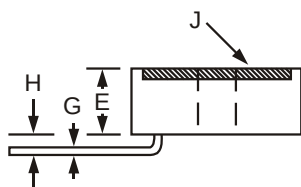


KBPC15005L THRU KBPC1510L

IN - LINE SINGLE - PHASE SILICON BRIDGE RECTIFIER
VOLTAGE - 50 TO 1000 VOLTS CURRENT - 15.0 AMPERES



KBPC-L		
Dim	Min	Max
A	28.45	28.70
B	19.05	—
C	13.97	—
D	5.10	—
E	10.97	11.23
G	1.02	—
H	3.05	3.60
J	Metal heat sink epoxy case	
All Dimensions in mm		



FEATURES

- Surge overload rating - 300 amperes peak
- Integrally molded heat-sink provide very low thermal resistance for maximum heat dissipation.
- Universal 3 way terminals: snap-on, wire wrap-around, or P.C. board mounting.
- 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 with heatsink integrally mounted in the bridge encapsulation

Terminals: wire lead ϕ 50 mils.

Weight: 0.65 ounce, 18 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	KBPC 15005L	KBPC 1501L	KBPC 1502L	KBPC 1504L	KBPC 1506L	KBPC 1508L	KBPC 1510L	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 $T_A = 55^\circ\text{C}$	$I_{(AV)}$	15.0							Amps
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	300							Amps
Maximum Instantaneous Forward Voltage Drop Per Bridge Element at 7.5A	V_F	1.2							Volts
Maximum DC Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 125^\circ\text{C}$	I_R	10 500							μA
Rating for fusing ($t < 8.3\text{ms}$)	I_t^2	375							A^2s
Typical Junction Capacitance (NOTE 1)	C_J	300							pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JC}$	6.3							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 150							$^\circ\text{C}$

NOTES:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 volts
2. Thermal resistance from junction to case per bridge element
3. Bolt down on heatsink with silicon thermal compound between bridge and mounting surface for maximum heat transfer efficiency with #10 screw

KBPC15005L THRU KBPC1510L

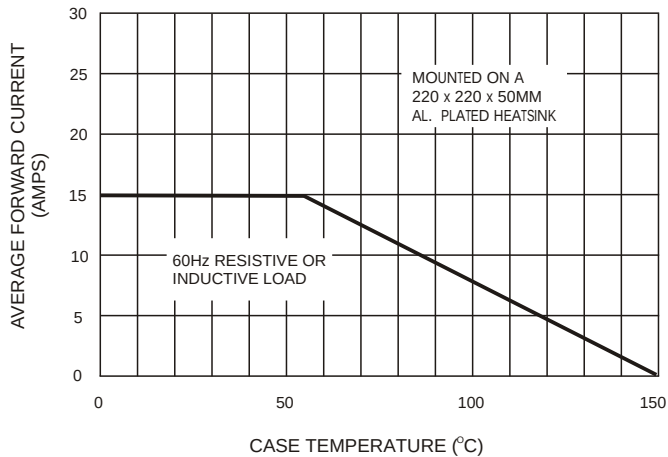


Figure 1. Forward Current Derating Curve

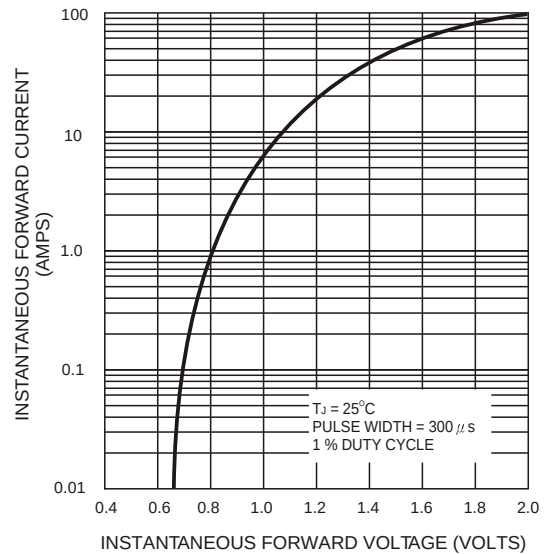


Figure 2. Typical Instantaneous Forward Characteristics Per Bridge Element

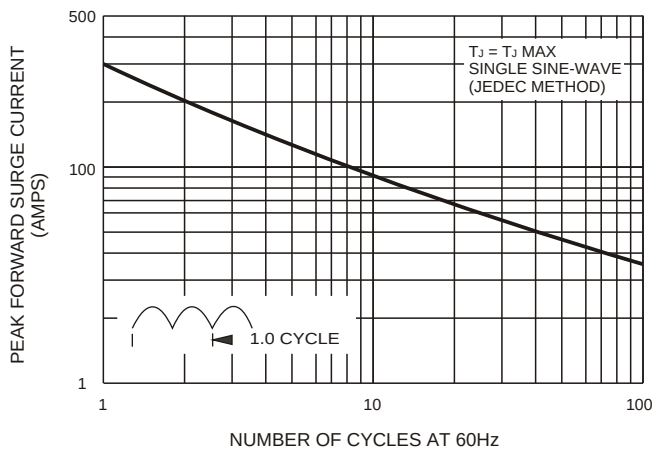


Figure 3. Maximum Non-repetitive Peak Forward Surge Current Per Bridge Element

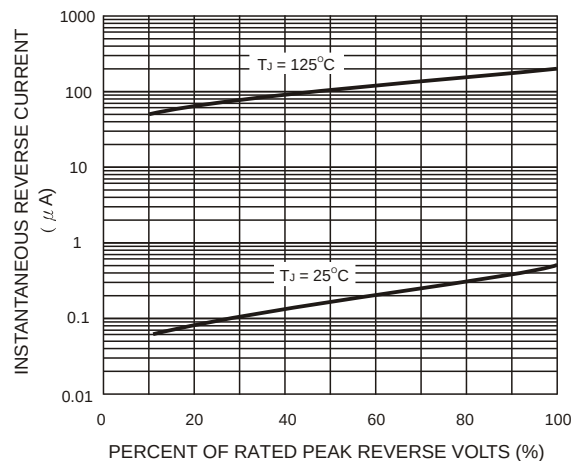


Figure 4. Typical Reverse Leakage Characteristics Per Bridge Element

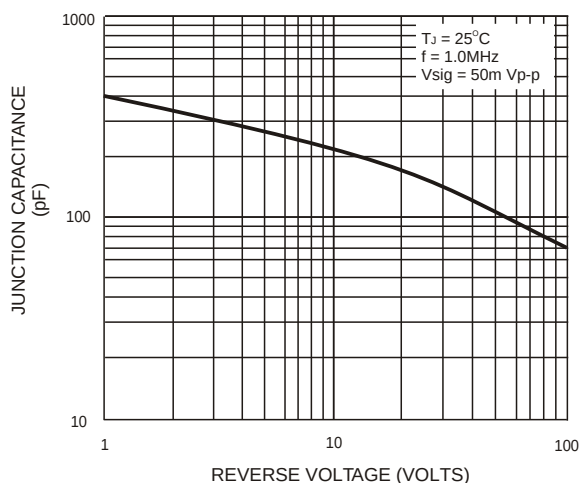


Figure 5. Typical Junction Capacitance Per Bridge Element

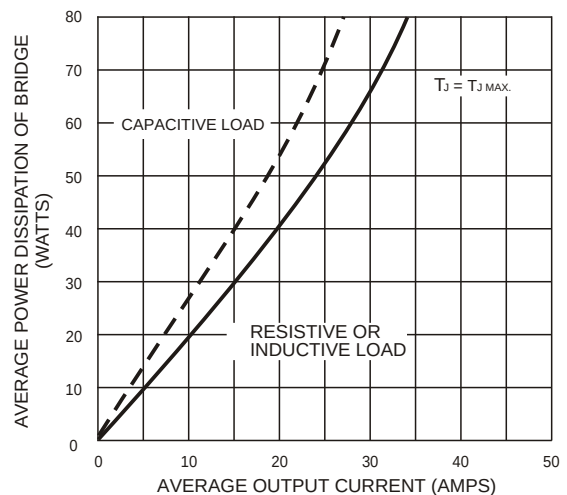


Figure 6. Maximum Power Dissipation