



KBP2005 THRU KBP210

GLASS PASSIVATED FAST BRIDGE RECTIFIERS

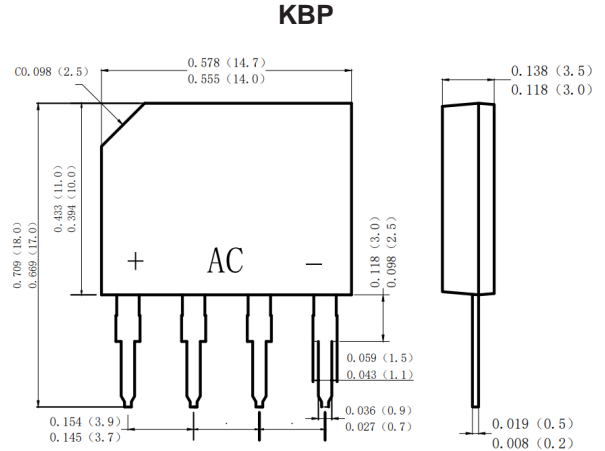
Reverse Voltage - 50 to 1000 Volts Forward Current - 2.0 Amperes

FEATURES

Ideal for printed circuit boards
 Reliable low cost construction technique
 results in inexpensive product
 High temperature soldering guaranteed:
 260°C/10 seconds/0.375" (9.5mm) lead length
 at 5 lbs.,(2.3kg) tension

MECHANICAL DATA

Case: Molded plastic
Lead: Solder plated
Mounting position: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 ambient temperature unless otherwise specified. Single phase, half wave ,60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	KBP2005	KBP201	KBP202	KBP204	KBP206	KBP208	KBP210	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	30	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 Current @ T _c =100°C (with heatsink)	I _(AV)	2.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I _{FSM}	60.0							A
Maximum Forward Voltage at 1.0 A DC	V _F	0.95							V
Maximum DC Reverse Current @ T _A =25 °C at Rated DC Blocking Voltage @ T _A =125 °C	I _R	5.0 500							uA
I ² t Rating for Fusing (t<8.3ms)	I ² t	14.9							A ² s
Typical Junction Capacitance Per Element (Note1)	C _J	30							pF
Typical Thermal Resistance (Note2)	R _{θJC}	10							°C/W
Operating Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

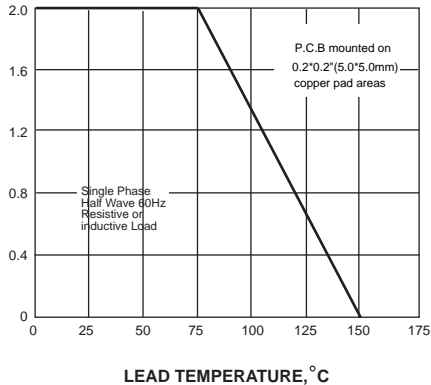
NOTES: 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.



RATINGS AND CHARACTERISTIC CURVES KBP2005 THRU KBP210

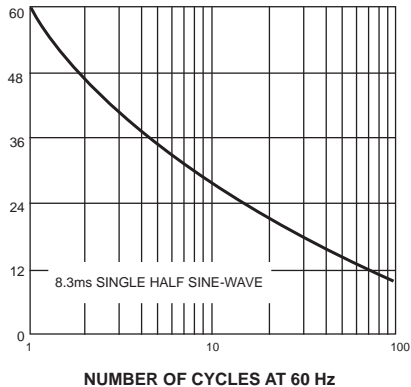
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



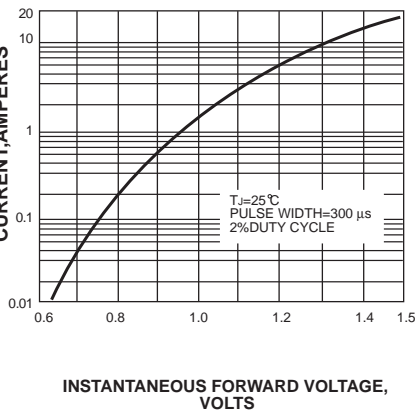
PEAK FORWARD SURGE CURRENT, AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



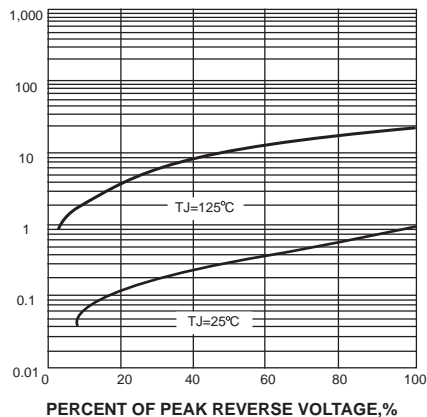
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



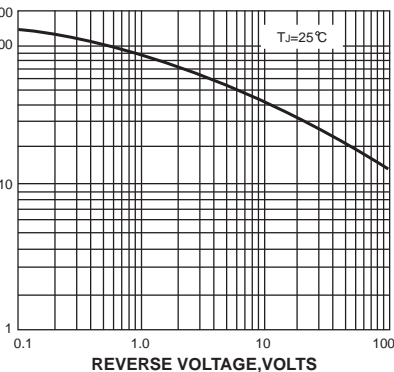
INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

