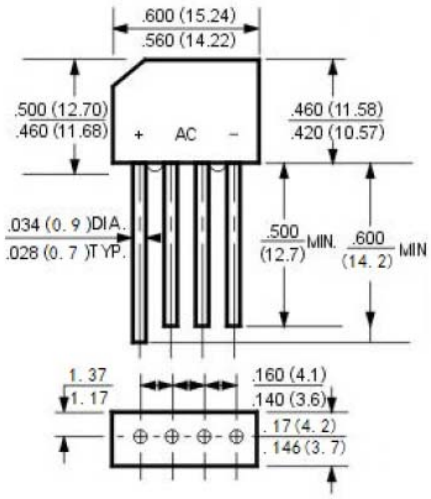
KBP2005 THRU KBP210

SINGLE-PHASE SILICON BRIDGE RECTIFIER
REVERSE VOLTAGE: 50 to 1000 V
FORWARD CURRENT: 2 A

KBP



Dimensions in inches and (millimeters)

Features
- Reliable low cost construction utilizing molded plastic technique
- Ideal for printed circuit board
- Low forward voltage drop
- Low reverse leakage current
- High surge current capability

Mechanical Date
- Case: Molded plastic, KBP
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Leads solderable per MIL-STD-202 method 208 guaranteed
- Mounting position: Any

Absolute Maximum Ratings and Characteristics
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	KBP 2005	KBP 201	KBP 202	KBP 204	KBP 206	KBP 208	KBP 210	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	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 .375" (9.5 mm) Lead Length at T_A = 50 °C	$I_{(AV)}$	2							A
Peak Forward Surge Current, 8.3 ms Single Half-Sine -Wave superimposed on rated load (JEDEC Method)	I_{FSM}	60							A
Maximum Forward Voltage at 2 A DC and 25 °C	V_F	1.1							V
Maximum Reverse Current at T_A = 25 °C at Rated DC Blocking Voltage T_A = 100 °C	I_R	10 500							μA
Typical Junction Capacitance [1]	C_J	25							pF
Typical Thermal Resistance [2]	$R_{\theta JA}$	30							°C/W
Typical Thermal Resistance [2]	$R_{\theta JL}$	11							°C/W
Operating and Storage Temperature Range	T_J, T_{Stg}	-55 to +125							°C

[1] Measured at 1 MHz and applied reverse voltage of 4 VDC.

[2] Thermal resistance junction to ambient and from juntion to lead at 0.375" (9.5 mm) lead length P.C.B mounted.

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FIG.1- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

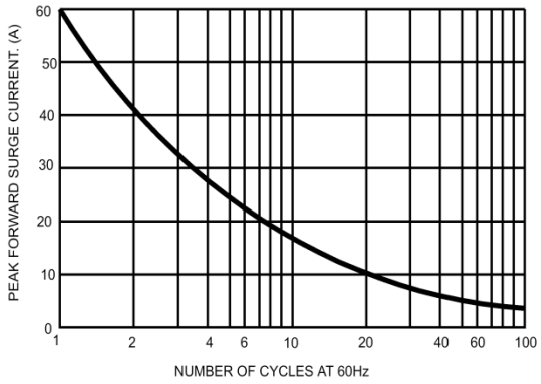


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

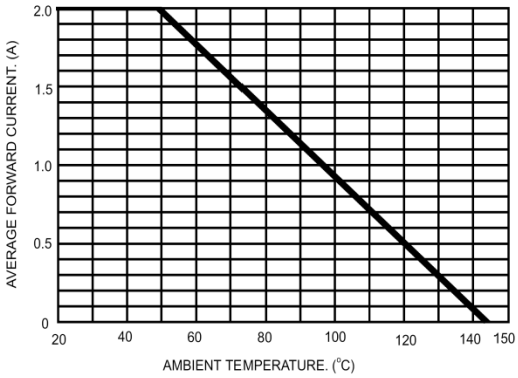


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

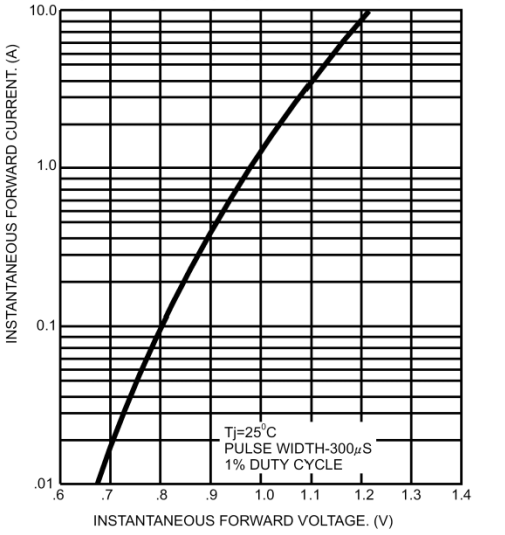
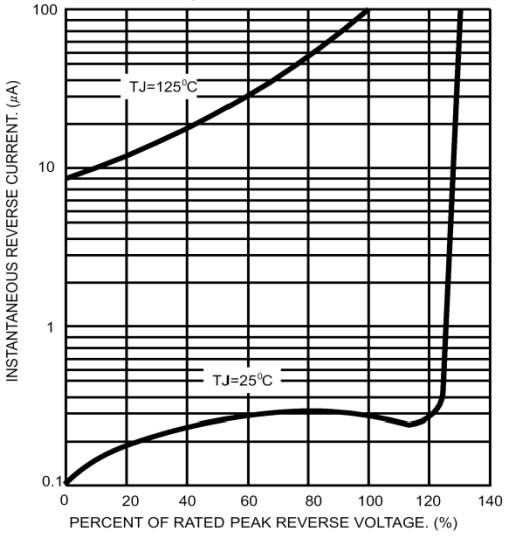


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT



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