



Certificate Number: Q14561

Certificate Number: E17276

# KBP200 - KBP210

# SILICON BRIDGE RECTIFIERS

**PRV : 50 - 1000 Volts**

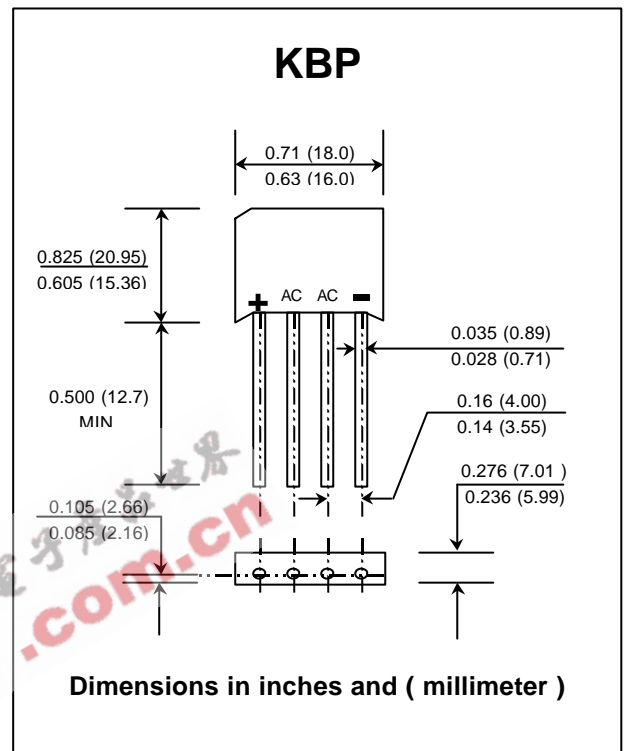
**Io : 2.0 Amperes**

### FEATURES :

- \* High case dielectric strength
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Ideal for printed circuit board

### MECHANICAL DATA :

- \* Case : Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Terminals : Plated lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Polarity symbols marked on case
- \* Mounting position : Any
- \* Weight : 3.4 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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%.

RATING	SYMBOL	KBP 200	KBP 201	KBP 202	KBP 204	KBP 206	KBP 208	KBP 210	UNIT
Maximum Recurrent 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 Current $T_c = 50^\circ C$	$I_{F(AV)}$	2.0							Amps.
Peak Forward Surge Current, Single half sine wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$	60							Amps.
Rating for fusing ( $t < 8.3$ ms. )	$I^2t$	10							A <sup>2</sup> S
Maximum Forward Voltage per Diode at $I_F = 1.0$ Amp.	$V_F$	1.0							Volts
Maximum DC Reverse Current $T_a = 25^\circ C$ at Rated DC Blocking Voltage $T_a = 100^\circ C$	$I_R$	10							$\mu A$
	$I_{R(H)}$	1.0							mA
Typical Junction Capacitance per Diode (Note 1)	$C_J$	24							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	30							$^\circ C/W$
Operating Junction Temperature Range	$T_J$	- 50 to + 125							$^\circ C$
Storage Temperature Range	$T_{STG}$	- 50 to + 125							$^\circ C$

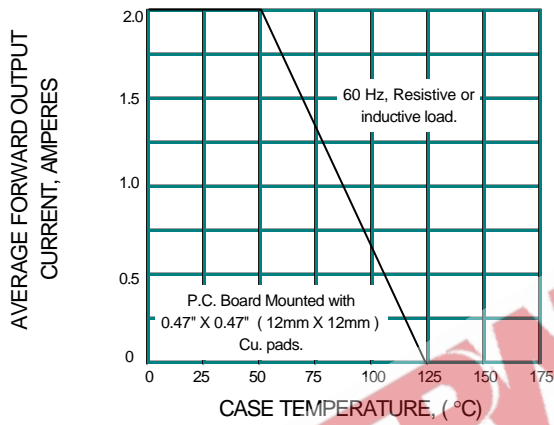
#### Notes :

- 1 ) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
- 2 ) Thermal resistance from Junction to Ambient with units mounted on a 0.47" X 0.47" ( 12mm X 12mm ) Cu. Pads.

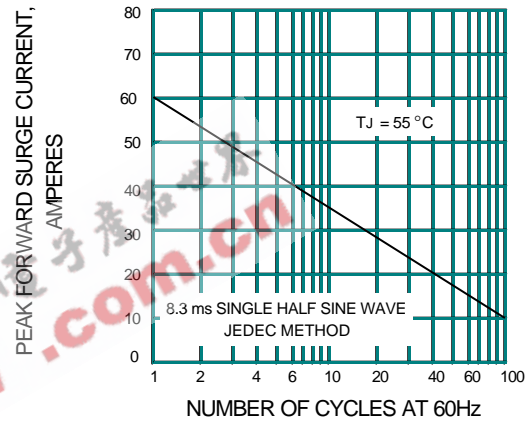
**UPDATE : MARCH 6, 2000**

## RATING AND CHARACTERISTIC CURVES ( KBP200 - KBP210 )

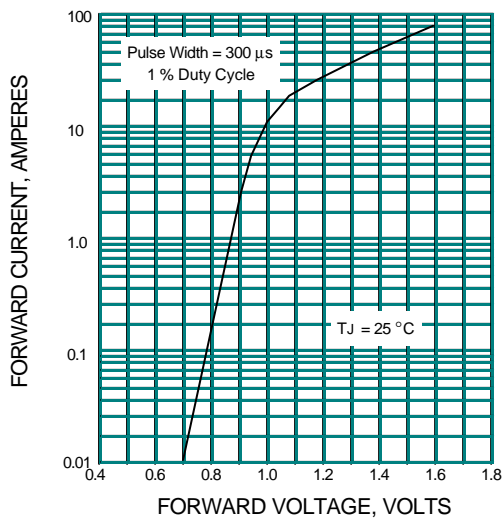
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

