

## 2KBP005 - 2KBP10

PRV : 50 - 1000 Volts

Io : 2.0 Amperes

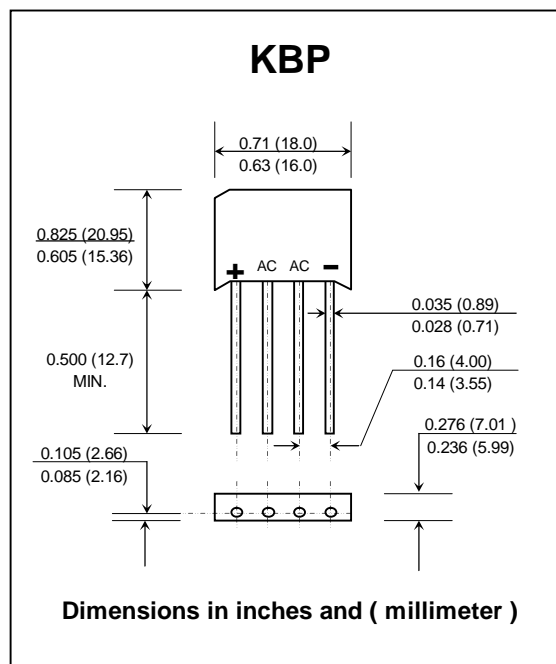
### FEATURES :

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

### 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

## SILICON BRIDGE RECTIFIERS



### 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%.

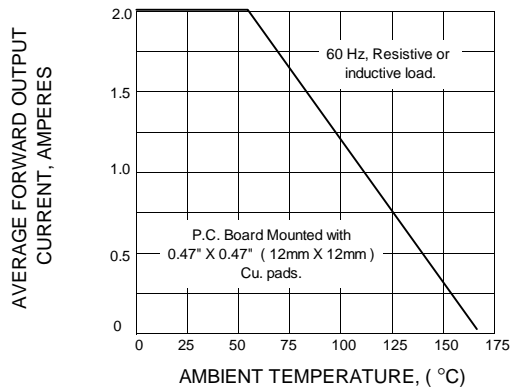
RATING	SYMBOL	2KBP 005	2KBP 01	2KBP 02	2KBP 04	2KBP 06	2KBP 08	2KBP 10	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Output Current Ta = 55°C	I <sub>F(AV)</sub>					2.0			A
Peak Forward Surge Current, Single sine wave Superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>					60			A
Rating for fusing ( t < 8.3 ms. )	I <sup>2</sup> t					15			A <sup>2</sup> S
Maximum Instantaneous Forward Voltage drop per element at 3.14 Amp.	V <sub>F</sub>					1.1			V
Maximum DC Reverse Current Ta = 25 °C	I <sub>R</sub>					10			μA
at Rated DC Blocking Voltage per element Ta = 125 °C	I <sub>R(H)</sub>					500			μA
Typical Junction Capacitance per element (Note 1)	C <sub>J</sub>					25			pF
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>					30			°C/W
Operating Junction Temperature Range	T <sub>J</sub>					- 50 to + 165			°C
Storage Temperature Range	T <sub>STG</sub>					- 50 to + 165			°C

#### Notes :

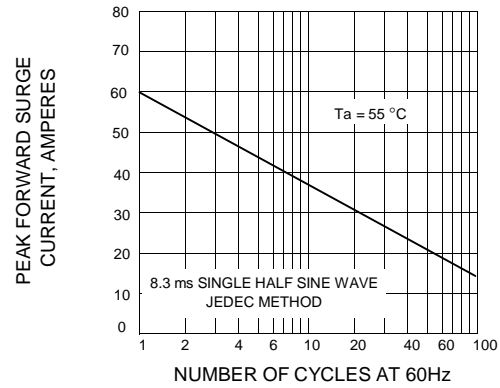
- 1 ) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
- 2 ) Thermal resistance from Junction to Ambient with units mounted on a 0.47" X 0.47" ( 12mm X 12mm ) Cu. Pads.

## RATING AND CHARACTERISTIC CURVES ( 2KBP005 - 2KBP10 )

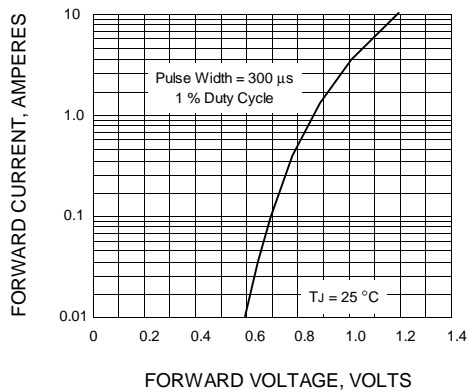
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



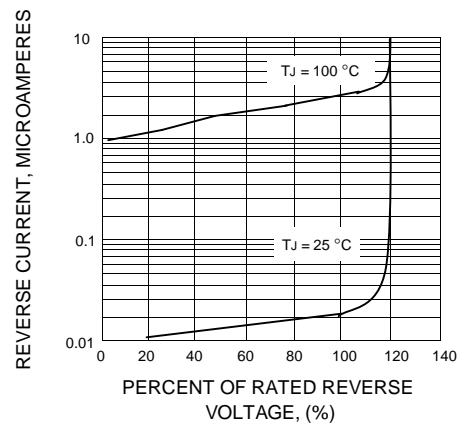
**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



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



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**



**FIG.5 - TYPICAL JUNCTION CAPACITANCE PER ELEMENT**

