



**KBPC300 SERIES**

**SILICON BRIDGE RECTIFIERS**

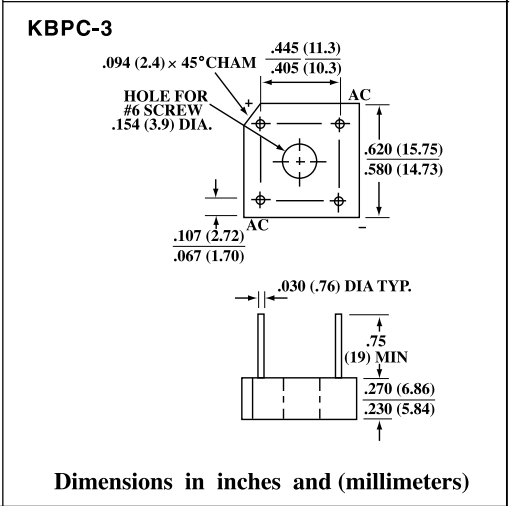
**FEATURES**

- High temperature metallurgically bonded internal rectifiers.
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
- Typical  $I_r$  less Than 1  $\mu$ A.
- Exceeds environmental standards of MIL-STD-19500.
- High temperature soldering guaranteed : 265°C /10 seconds/.375" ( 9.5mm ) lead length at 5 lbs., ( 2.3kg ) tension.

**MECHANICAL DATA**

Case : Void-free plastic package.  
 Terminals : Leads solderable per MIL-STD-202,Method 208.  
 Mounting : Thru hole for #6 screw.  
 Mounting position : Any.  
 Weight : 2.6 grams.

**VOLTAGE RANGE**  
**50 to 1000 Volts**  
**CURRENT**  
**3.0 Amperes**



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

<b>RATINGS</b>	<b>KBPC300</b>	<b>KBPC301</b>	<b>KBPC302</b>	<b>KBPC304</b>	<b>KBPC306</b>	<b>KBPC308</b>	<b>KBPC3010</b>	<b>Units</b>
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Output Current at				3.0				A
T <sub>c</sub> = 50°C ( Note1 )				2.0				A
T <sub>c</sub> = 100°C ( Note1 )				2.0				A
Peak Forward Surge Current single half sine-wave Superimposed on rated load ( JEDEC Method )				60				A
Maximum Instantaneous Forward Voltage Drop per element at 1.5A				1.0				V
Typical Junction Capacitance per element (Note3)				20				pF
Maximum Reverse Leakage at rated DC Blocking Voltage per Element				10.0				$\mu$ A
T <sub>A</sub> = 25°C				1.0				mA
T <sub>A</sub> = 100°C								
Operating Temperature Range T <sub>J</sub>				-55 to +125				°C
Storage Temperature Range T <sub>STG</sub>				-55 to +150				°C

**NOTES :** 1. Unit mounted on 2.0" sq. by .06" thick ( 50mm 2 by 1.5mm ) copper plate  
 2. Unit mounted on P.C. board .375" ( 9.5mm ) lead length.  
 3. Measured at 1.0 MHz and Applied Reverse Voltage of 4.0 Volts.



**RATING AND CHARACTERISTIC CURVES KBPC300 SERIES**

FIG. 1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

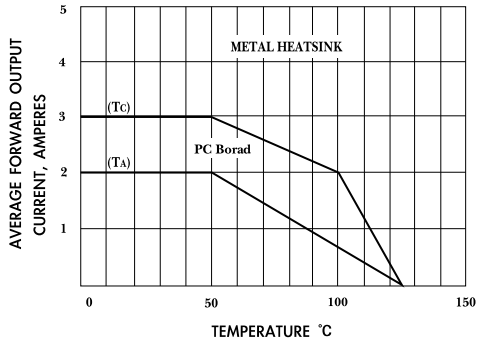


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

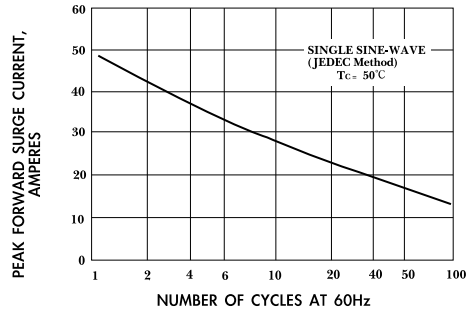


FIG. 3-TYPICAL FORWARD CHARACTERISTICS PER ELEMENT

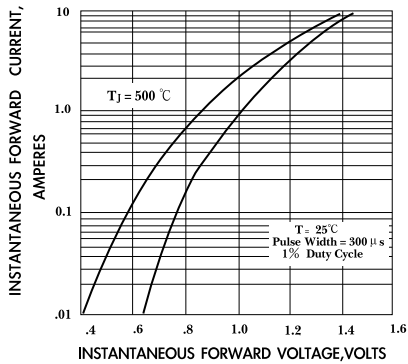


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

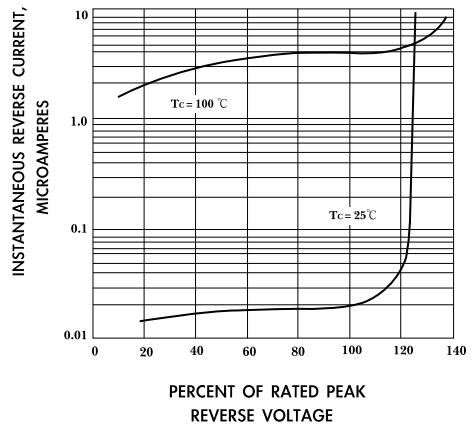


FIG. 5-TYPICAL JUNCTION CAPACITANCE PER ELEMENT

