

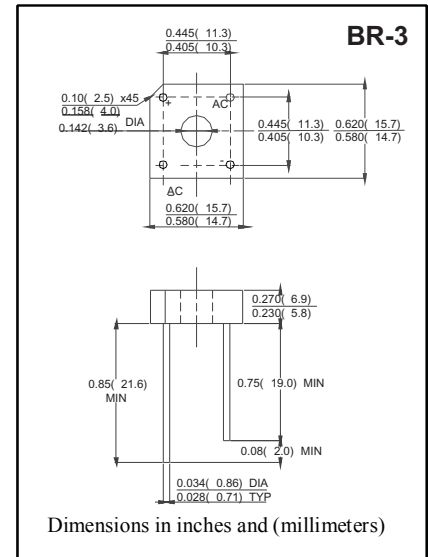
## SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

### FEATURES

- Glass assivated Chip
- High forward surge current capability
- Ideal for printed circuit board
- High isolation voltage from case to leads
- High temperature soldering guaranteed:  
260 °C/10 second, at 5 lbs. (2.3kg) tension.

### MECHANICAL DATA

- Case: Molded plastic body
- Terminal: Lead solderable per MIL-STD-202E method 208C.
- Polarity: Polarity symbols molded on case
- Mounting: Thru hole for #6 screw, 5 in.-lbs torque max.
- Weight: 0.093ounce, 2.62 grams



### 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%.

	SYMBOLS	KBPC1005 BR305	KBPC101 BR31	KBPC102 BR32	KBPC104 BR34	KBPC106 BR36	KBPC108 BR38	KBPC110 BR310	UNITS
Maximum Repetitive 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 Rectified Output Current, at	$T_C=50^\circ\text{C}$ (Note 2)	3.0							Amps
	$T_A=25^\circ\text{C}$ (Note 2)	2.0							
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	60							Amps
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	15							A <sup>2</sup> S
Maximum Instantaneous Forward Voltage at 5.0A	$V_F$	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage per element	$T_A=25^\circ\text{C}$	5							μAmps
	$T_A=100^\circ\text{C}$	0.5							mAmps
Isolation Voltage from case to leads	$V_{ISO}$	2500							μAmps
Typical Junction Capacitance Resistance (Note 1)	$C_J$	20							°C/W
Typical Thermal Resistance per element (Note 2)	$R_{\theta JA}$	12							°C/W
Operating Temperature Range	$T_J$	-55 to +150							°C
Storage Temperature Range	$T_{STG}$	-55 to +150							°C

### NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts
2. Unit mounted on 4.0"×4.0"×0.11" thick (10.5×10.5×0.3mm) Al. plate.
3. Unit mounted on P.C.B at 0.375" (9.5mm) lead length with 0.5"×0.5" (12×12mm) copper pads.

**SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER**

**RATING AND CHARACTERISTIC CURVES KBPC1005 - KBPC110  
 BR305 - BR310**

FIG.1-DERATING CURVE FOR  
 OUTPUT DERTAINING CURVE

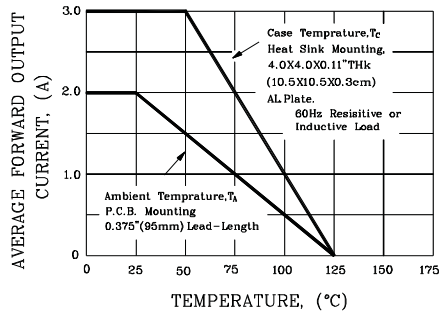


FIG.2-MAXIMUM NON-REPETITIVE PEAK  
 FORWARD SURGE CURRENT PER ELEMENT

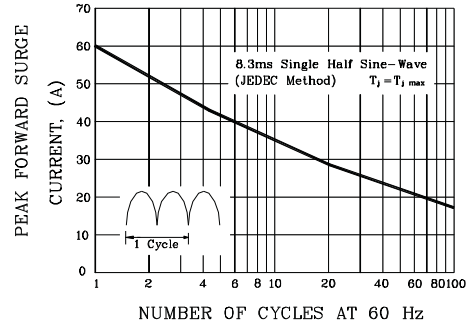


FIG.3-TYPICAL FORWARD CHARACTERISTICS  
 PER BRIDGE ELEMENT

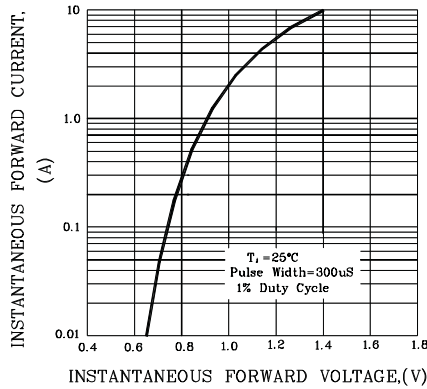


FIG.4-TYPICAL REVERSE CHARACTERISTICS  
 PER BRIDGE ELEMENT

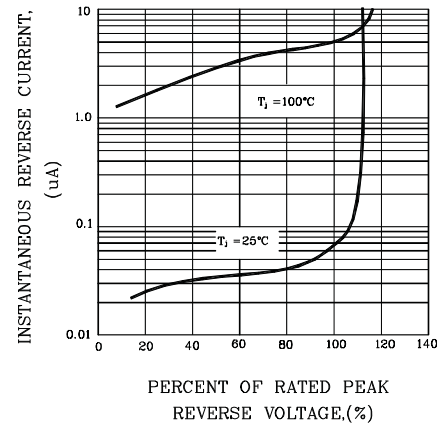
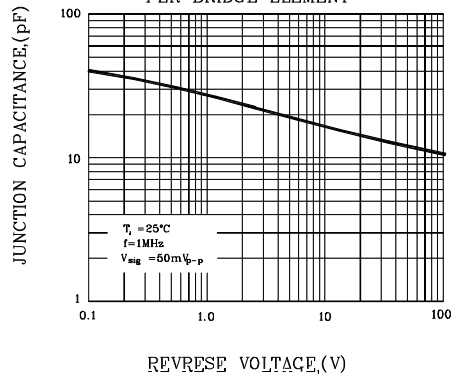


FIG.5-TYPICAL JUNCTION CAPACITANCE  
 PER BRIDGE ELEMENT



**Disclaimer**

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.