Compact Technology

KBP301 thru KBP308

GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE **- 50** to **1000** Volts
FORWARD CURRENT **- 3.0** Amperes

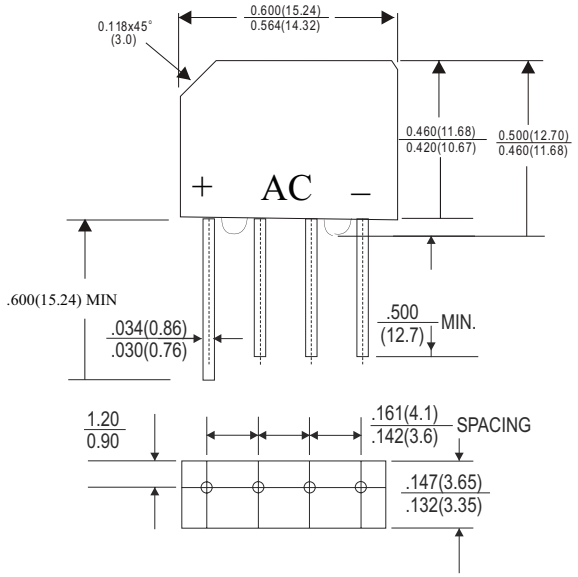
FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- The plastic material has UL flammability classification 94V-0
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Polarity : As marked on Body
- Weight : 0.06 ounces, 1.7 grams
- Mounting position : Any

KBP



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	KBP 301	KBP 302	KBP 303	KBP 304	KBP 305	KBP 306	KBP 308	UNIT
Maximum recurrent peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified current @TA=50℃	I_F	3.0							A
I^2t Rating for fuisng (t< 8.3mS)	I^2t	26							A^2sec
Peak forward surge current, single sine-wave superim posed on rated load (JEDEC method)	I_{FSM}	80							A
Maximum instantaneous Forward Voltage Drop per element at 1.5A DC	V_F	1.1							V
Maximum DC Reverse Current @TA=25℃ at Rated DC Blocking Voltage @TA=100℃	I_R	5.0 500							uA
Typical junction capacitance per leg(note1)	C_J	25							pF
Typical Thermal Resistance Per leg (note2)	$R_{\theta JA}$ $R_{\theta JC}$	30 11							℃/W
Operating & StorageTemperature Range	TJ&TSTG	-55 to +150							℃

note1. Measured at 1.0MHz and applied reverse voltage of 4.0 volts
note2. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B with 0.47x0.47" (12x12mm) copper pads.

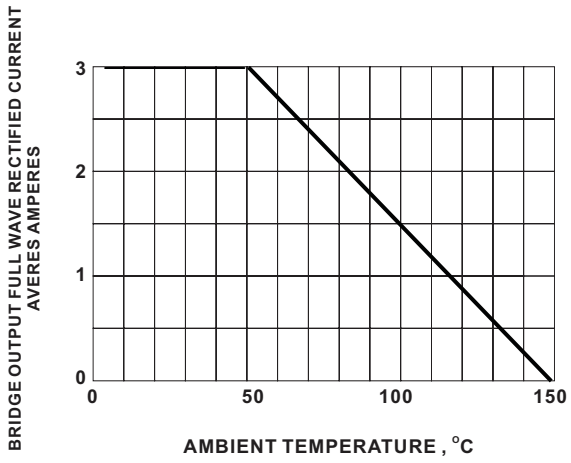


Fig.1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

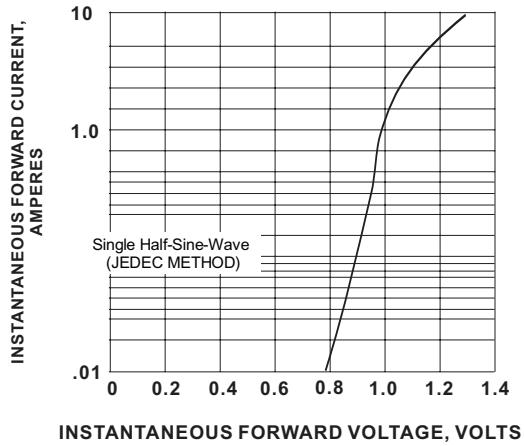


Fig.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

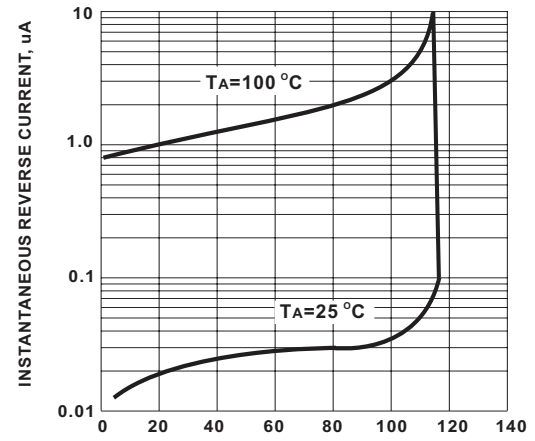


Fig.3 TYPICAL PEAK REVERSE CHARACTERISTICS

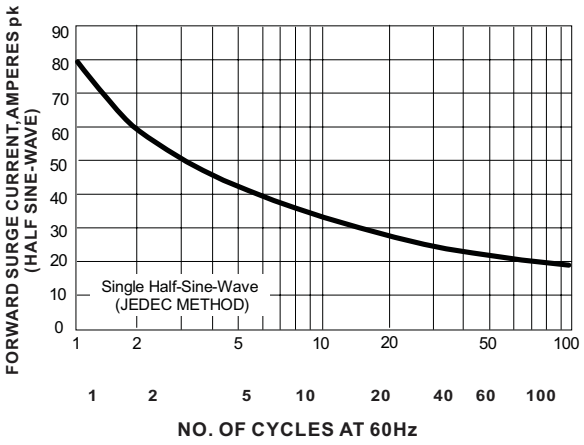


Fig.4 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT