

**VOLTAGE RANGE: 50 --- 1000 V**

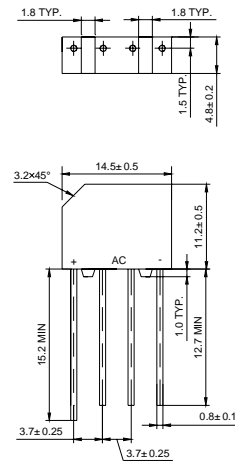
**CURRENT: 3.0 A**



### KBP

### Features

- ◇ Rating to 1000V PRV
- ◇ Surge overload rating to 50 Amperes peak
- ◇ Ideal for printed circuit board
- ◇ Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- ◇ Lead solderable per MIL-STD-202 method 208
- ◇ Plastic material has UL flammability classification 94V-O
- ◇ Weight: 0.050 ounces, 1.42 grams
- ◇ Glass passivated chip junctions



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

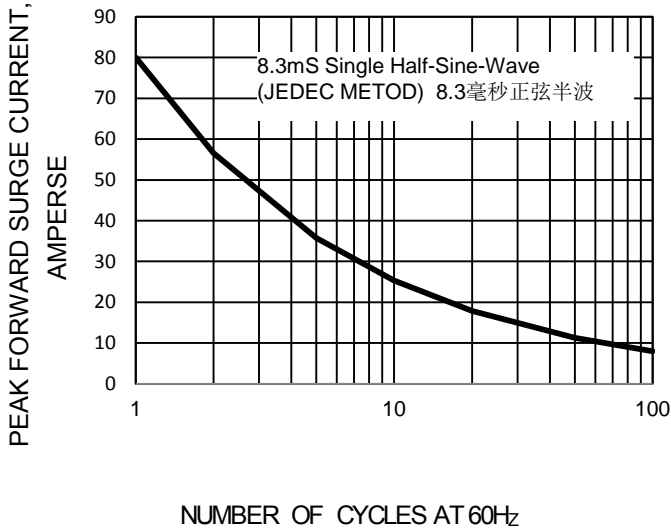
Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

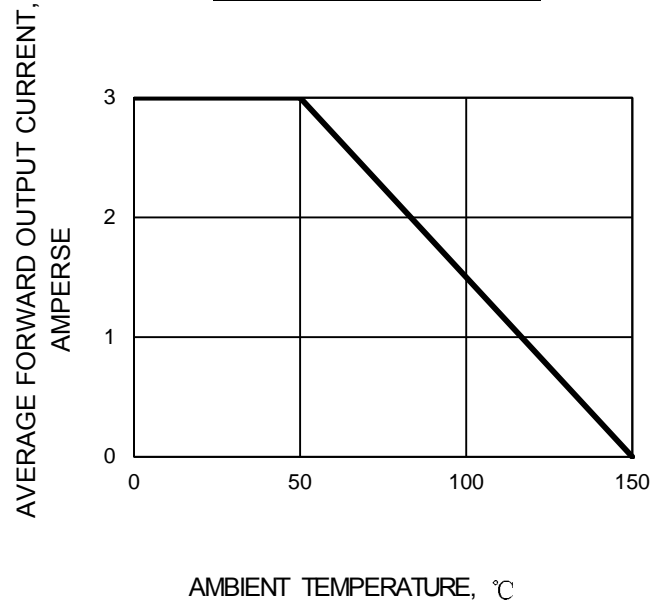
		KBP 3005	KBP 301	KBP 302	KBP 304	KBP 306	KBP 308	KBP 310	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward Output current @ $T_A=25^\circ\text{C}$	$I_{F(AV)}$	3.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	80.0							A
$I^2t$ Rating for fusing @ $T_j=25^\circ\text{C}$	$I^2t$	26.6							A <sup>2</sup> S
Maximum instantaneous forward voltage @ 3.0 A	$V_F$	1.1							V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	$I_R$	10.0 1.0							$\mu\text{A}$ mA
Typical Thermal Resistance (Note)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	30 8 11							$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	- 55 ---- + 150							$^\circ\text{C}$
Storage temperature range	$T_{STG}$	- 55 ---- + 150							$^\circ\text{C}$

## Ratings AND Characteristic Curves

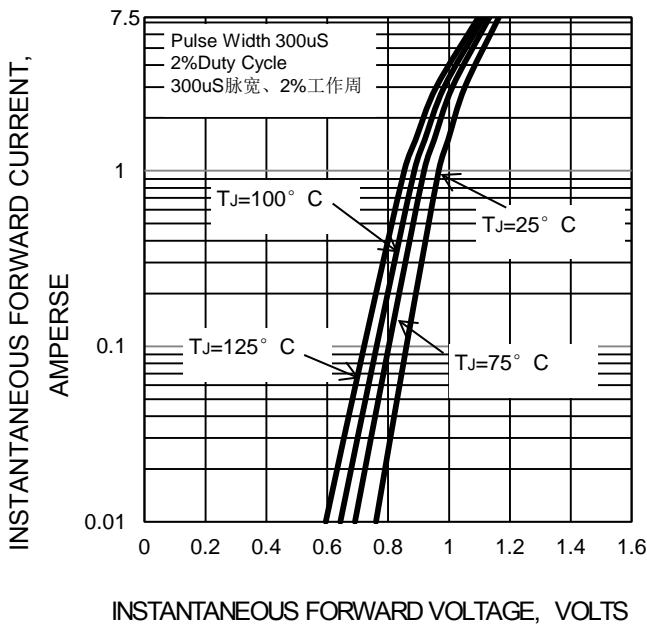
**FIG.1 – PEAK FORWARD SURGE CURRENT**



**FIG.2 – FORWARD DERATING CURVE  
OUTPUT RECTIFIED CURRENT**



**FIG.3 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.4 – TYPICAL REVERSE CHARACTERISTIC**

