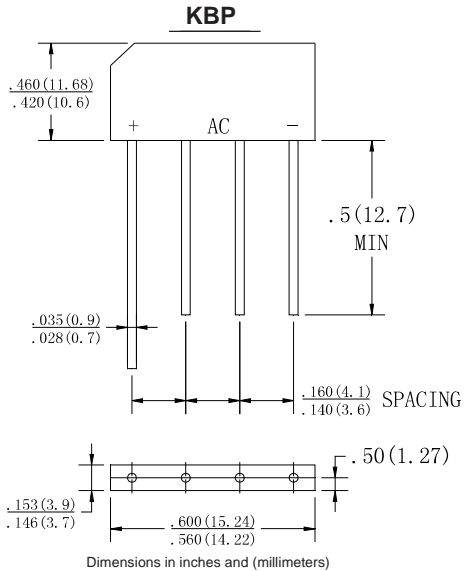


# KBP3005 THRU KBP310

## SILICON BRIDGE RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 3.0 Amperes



### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Ideal for printed circuit boards
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:  
260°C/10 seconds, 0.375" (9.5mm) lead length,  
5 lbs. (2.3kg) tension

### MECHANICAL DATA

**Case:** Molded plastic body

**Terminals:** Plated leads solderable per MIL-STD-750, Method 2026

**Polarity:** Polarity symbols marked on case

**Mounting Position:** Any

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

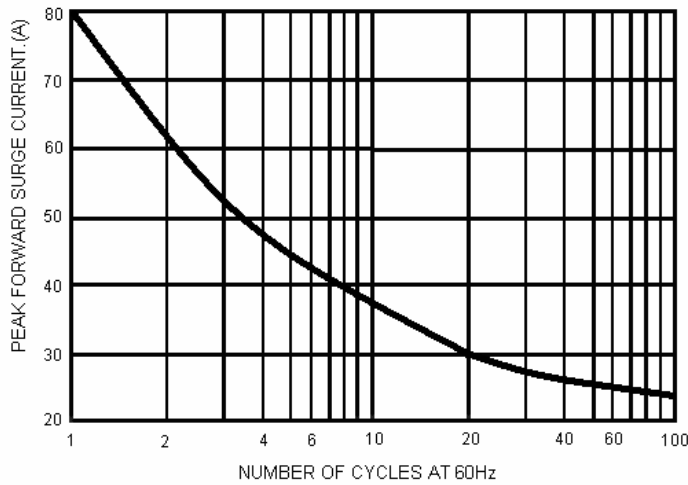
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

	SYMBOLS	KBP 3005	KBP 301	KBP 302	KBP 304	KBP 306	KBP 308	KBP 310	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 output rectified current at $T_A=50^\circ\text{C}$	$I_{(AV)}$	3.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	80							Amps
Maximum instantaneous forward voltage drop per bridge element at 3.0A	$V_F$	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	$I_R$	10							$\mu\text{A}$
		0.5							mA
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	30							$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_J$	-55 to +150							$^\circ\text{C}$
storage temperature range	$T_{STG}$	-55 to +150							$^\circ\text{C}$

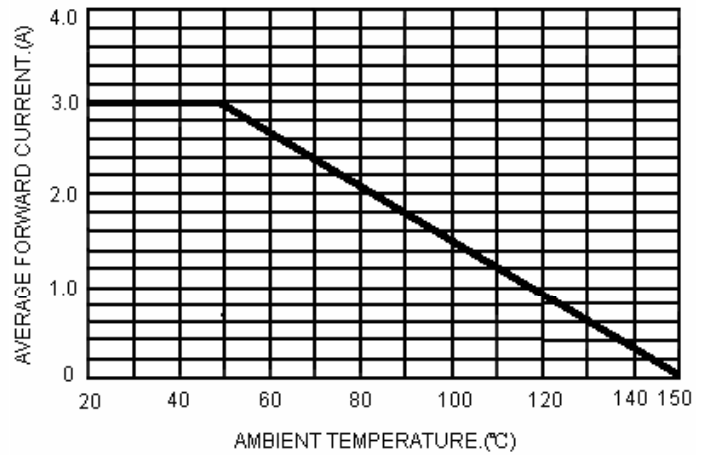
NOTES: 1. Unit mounted on 0.47 x 0.47" (12x12mm) copper pads.

**RATINGS AND CHARACTERISTIC CURVES KBP3005 THRU KBP310**

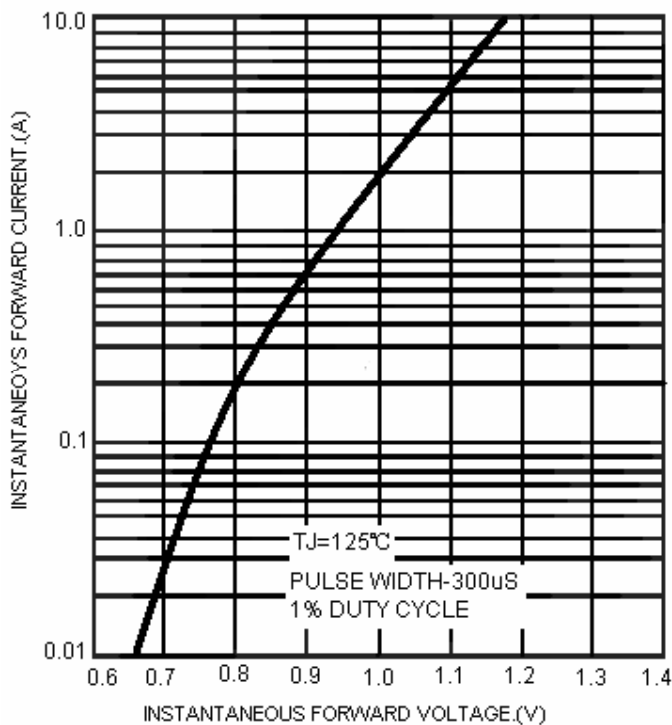
**FIG.1-MAXIMUM NONO-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMMENT**



**FIG.2-MAXIMUM FORWARD CURRENT DERATING CURVE**



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



**FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT**

