



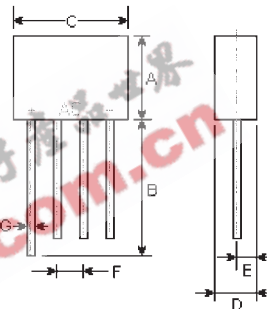
## KBP005 THRU KBP10

**SINGLE-PHASE SILICON BRIDGE**  
**Reverse Voltage - 50 to 1000 Volts**  
**Forward Current - 2.0 Amperes**

### Features

- Surge overload rating - 50 amperes peak
- Ideal for printed circuit board
- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- Mounting Position: Any
- Lead: Silver plated copper lead

### RS-2



DIM	DIMENSIONS				Note
	inches		mm		
	Min.	Max.	Min.	Max.	
A	-	0.504	-	12.8	
B	0.75	-	19.0	-	
C	-	0.693	-	17.6	
D	-	0.25	-	6.4	
E	-	0.125	-	3.2	
F	-	0.15	-	3.8	
G	0.32 Typ.		0.8 Typ.		ϕ

### Maximum Ratings and Electrical Characteristics

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

	Symbols	KBP005	KBP01	KBP02	KBP04	KBP06	KBP08	KBP10	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS bridge input 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 $T_A=50^\circ\text{C}$	$I_{(AV)}$	2.0							Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	50.0							Amps
Maximum forward Voltage drop per bridge element at 1.0A peak	$V_F$	1.0							Volt
Maximum DC reverse current at rated DC blocking voltage per element	$I_R$	10.0							$\mu\text{A}$
Maximum DC reverse current at rated DC blocking voltage per element $T_A=100^\circ\text{C}$	$I_R$	1.0							mA
Operating temperature range	$T_J$	-55 to +125							$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150							$^\circ\text{C}$

## RATINGS AND CHARACTERISTIC CURVES

Fig. 1—DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

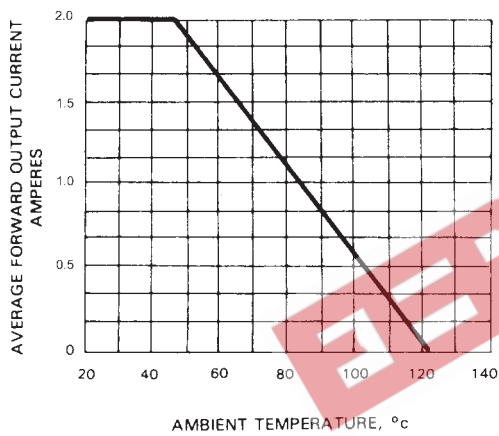


Fig. 2 — DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

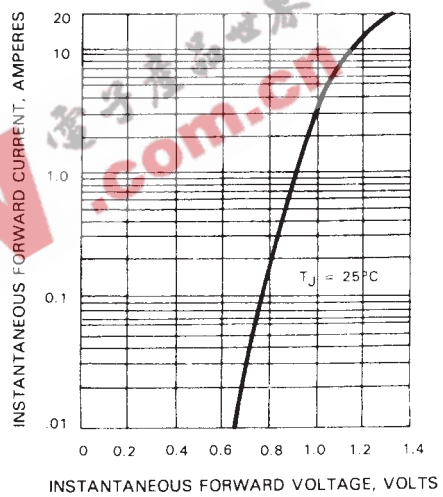


Fig. 3 — TYPICAL FORWARD CHARACTERISTICS

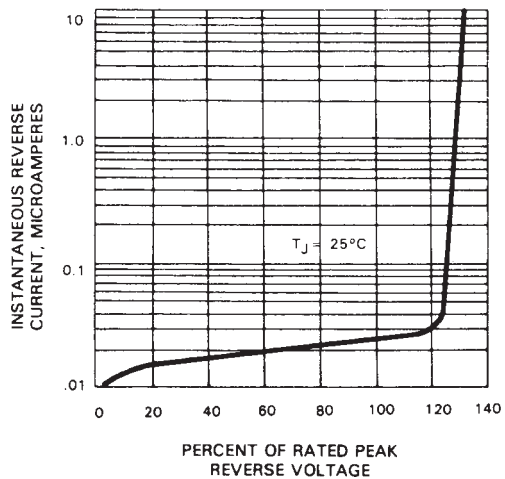


Fig. 4 — MAXIMUM FORWARD SURGE CURRENT

