



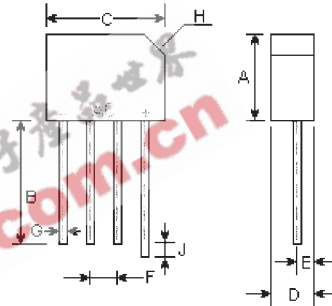
# KBL005 THRU KBL10

**SINGLE-PHASE SILICON BRIDGE**  
**Reverse Voltage - 50 to 1000 Volts**  
**Forward Current - 4.0 Amperes**

## Features

- Ideal for printed circuit board
- Surge overload rating - 150 amperes peak
- Mounting Position: Any
- Lead: Silver-plated copper
- Plastic material has Underwriters Laboratory Flammability Classification 94V-0

## RS-4



DIM	DIMENSIONS				Note
	inches		mm		
	Min.	Max.	Min.	Max.	
A	0.605	0.825	15.367	16.383	
B	0.750	-	19	-	
C	0.730	0.770	18.542	19.558	
D	0.235	0.265	5.97	6.73	
E	0.070 Typ.		1.778 Typ.		
F	0.190	0.210	4.83	5.33	
G	0.048	0.052	1.22	1.32	φ
H	0.156x45°				
J	0.200 Typ.		5.08 Typ.		

## 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	KBL005	KBL01	KBL02	KBL04	KBL06	KBL08	KBL10	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 output current at $T_A=50^\circ\text{C}$ (Note 1)	$I_{(AV)}$	4.0							Amps
Peak forward surge current, 8.3mS single half sine-wave superimposed on rated load	$I_{FSM}$	150.0							Amps
Maximum forward Voltage drop per bridge element at 3.0A peak	$V_F$	1.0							Volt
Maximum DC reverse current at rate DC blocking voltage	$I_R$	10.0							μA
Maximum DC reverse current at rated DC blocking voltage and $T_A=150^\circ\text{C}$	$I_R$	1.0							mA
Operating and storage temperature range	$T_J, T_{STG}$	-55 to +150							°C

Note:

(1) Mounting conditions, 0.5" lead length maximum

## RATINGS AND CHARACTERISTIC CURVES

Fig. 1 – MAXIMUM FORWARD SURGE CURRENT

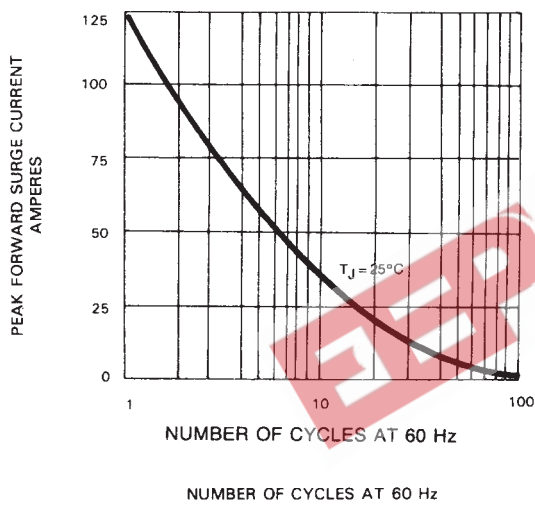


FIG. 2: DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

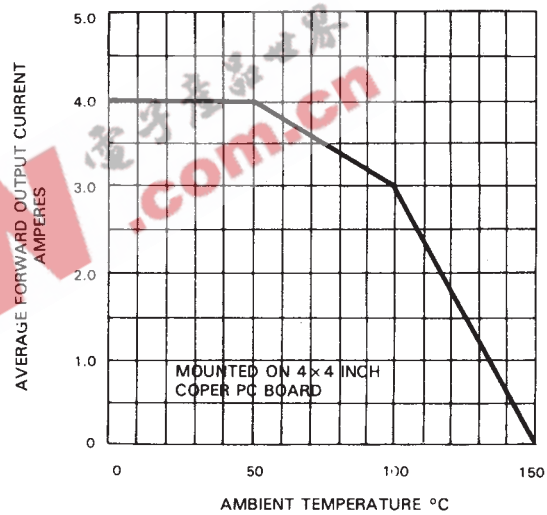


FIG. 3. TYPICAL FORWARD CHARACTERISTICS

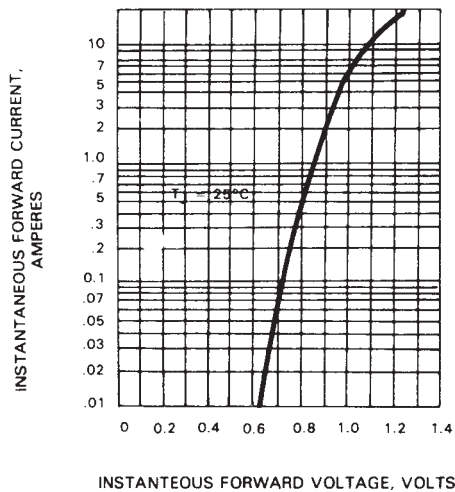


Fig. 4 – TYPICAL REVERSE CHARACTERISTICS (25°C)

