

## KBL4005 THRU KBL410

Single Phase 4.0 AMPS. Silicon Bridge Rectifiers

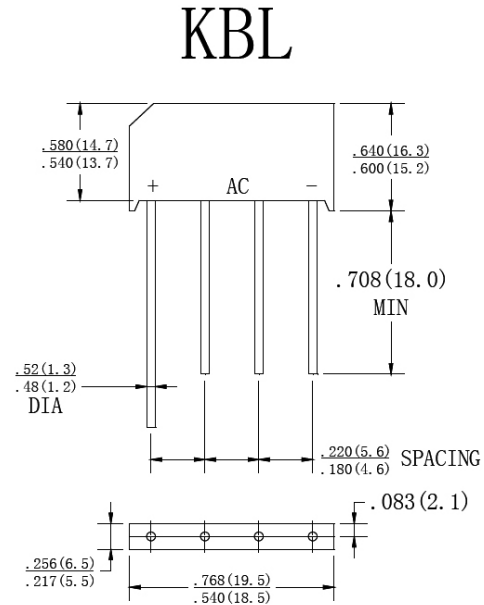
Voltage Range 50 to 1000 Volts Current 4.0 Amperes

### FEATURES

- ◆ Ideal for printed circuit board
- ◆ Reliable low cost construction technique results in inexpensive product
- ◆ High temperature soldering guaranteed:  
260°C / 10 seconds / 0.375" ( 9.5mm )  
lead length at 5 lbs., ( 2.3 kg ) tension
- ◆ UL Recognized File number: E347215

### MECHANICAL DATA

- ◆ Case: Molded plastic
- ◆ Lead: solder plated
- ◆ Polarity: As marked



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

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

Type Number		KBL 4005	KBL 401	KBL 402	KBL 404	KBL 406	KBL 408	KBL 410	UNITS
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at T <sub>A</sub> =50°C	I <sub>(AV)</sub>	4.0							A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	I <sub>FSM</sub>	150							A
Maximum Instantaneous Forward Voltage at 4.0A	V <sub>F</sub>	1.1							V
Maximum DC Reverse Current @ T <sub>A</sub> =25°C rated DC blocking voltage per leg T <sub>A</sub> =125°C	I <sub>R</sub>	10 500							μA
Typical Thermal Resistance (Note)	R <sub>θJA</sub>	19							°C/W
	R <sub>θJL</sub>	2.4							
Operating Temperature Range	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

**Note:** Thermal Resistance from Junction to Ambient and from Junction to Lead Mounted on P.C.B. with 0.47×0.47" (12×12mm) Copper Pads.

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## RATING AND CHARACTERISTIC CURVES KBL4005 THRU KBL410

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

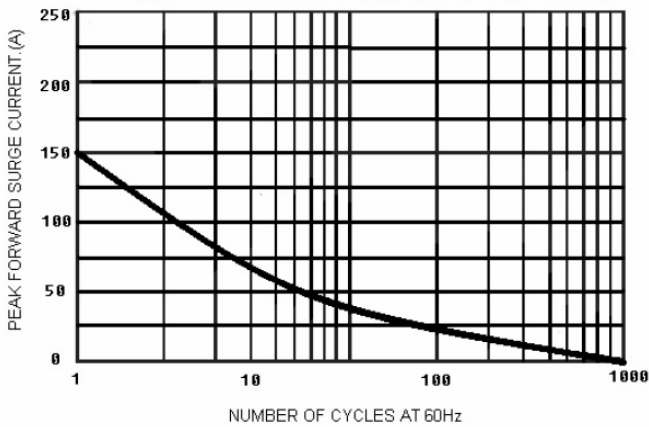


FIG.2-MAXIMUM FORWARD CURRENT DERATING CURVE

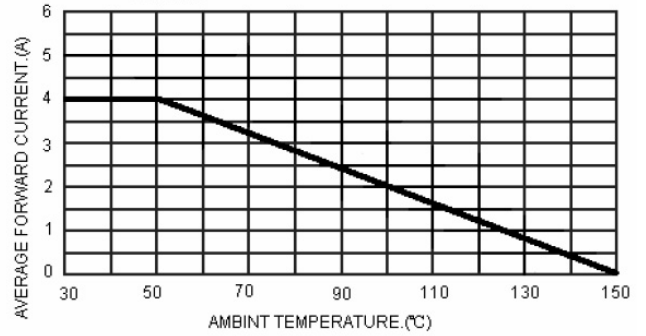


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

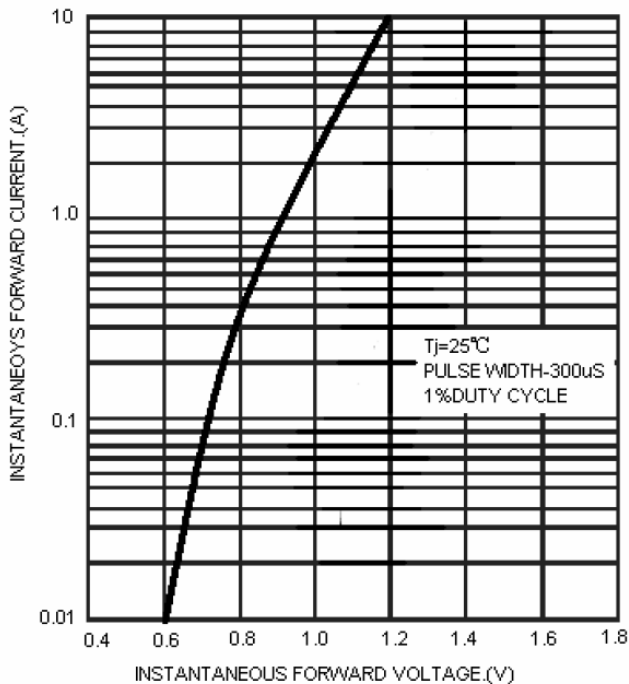
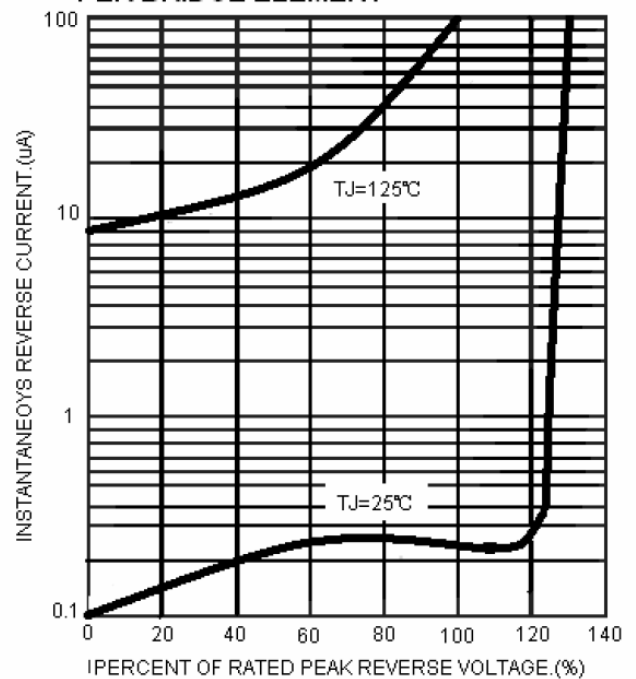


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT



Note: Specification are subject to change without notice. For more detail and update, please visit our website.