

KBL4005 THRU KBL410

Single Phase 4.0 AMPS. Silicon Bridge Rectifiers

Voltage Range 50 to 1000 Volts Current 4.0 Amperes

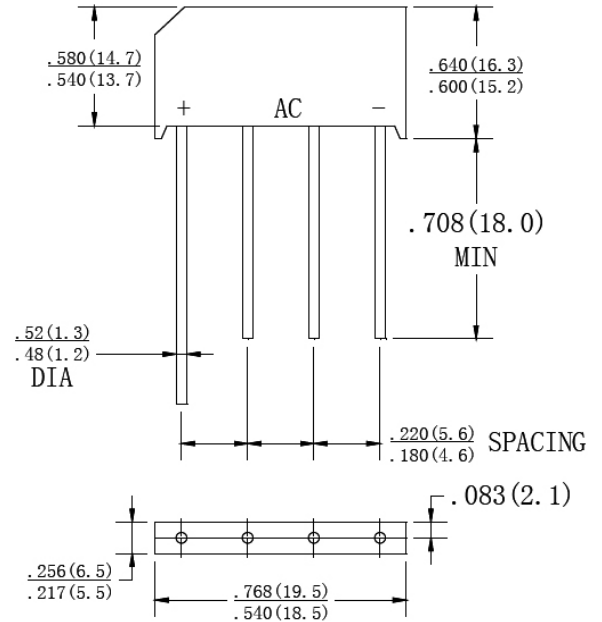
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FEATURES

- ◆ 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: E347214

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%

	SYMBOLS	KBL 4005	KBL 401	KBL 402	KBL 404	KBL 406	KBL 408	KBL 410	UNITS
Maximum Repetitive 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 Rectified Current at $T_A=50^\circ\text{C}$	$I_{(AV)}$	4.0							A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150							A
Maximum Instantaneous Forward Voltage at 4.0A	V_F	1.1							V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ rated DC blocking voltage per leg $T_A=125^\circ\text{C}$	I_R	10 500							μA
Typical Thermal Resistance (Note)	$R_{\theta JA}$ $R_{\theta JL}$	19 2.4							$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ\text{C}$

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 ELELMENT

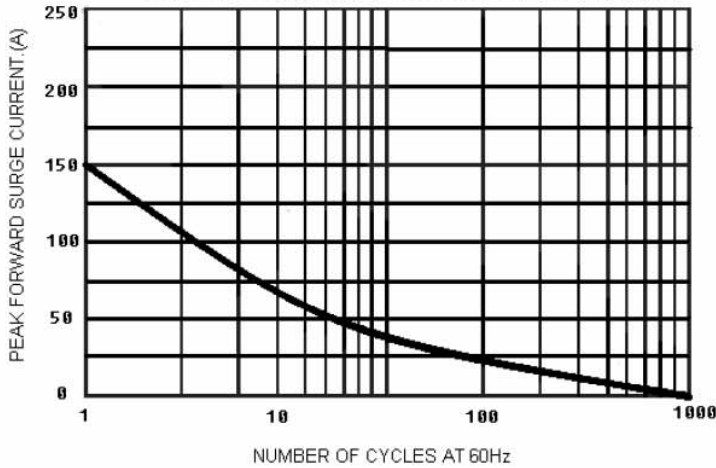


FIG.2-MAXIMUM FORWARD CURRENT DERATING CURVE

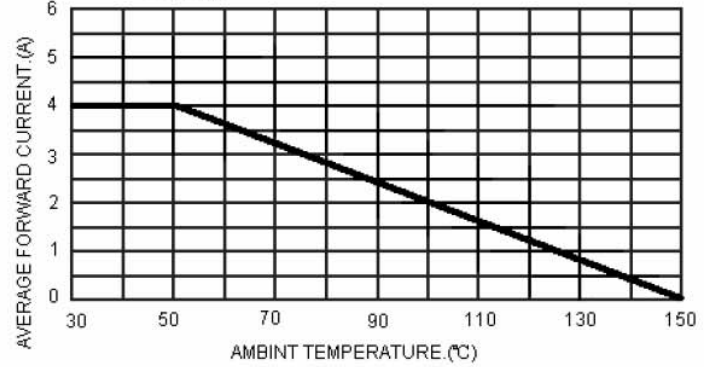


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

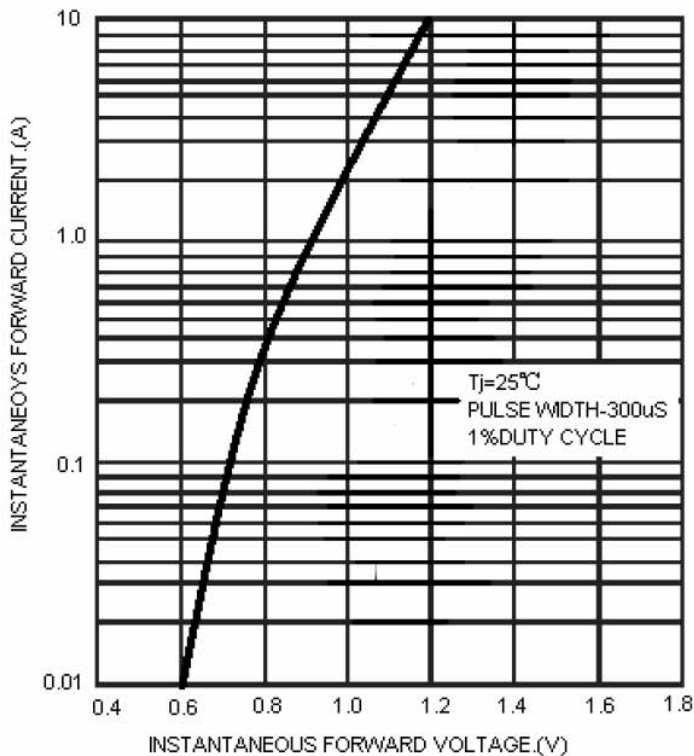
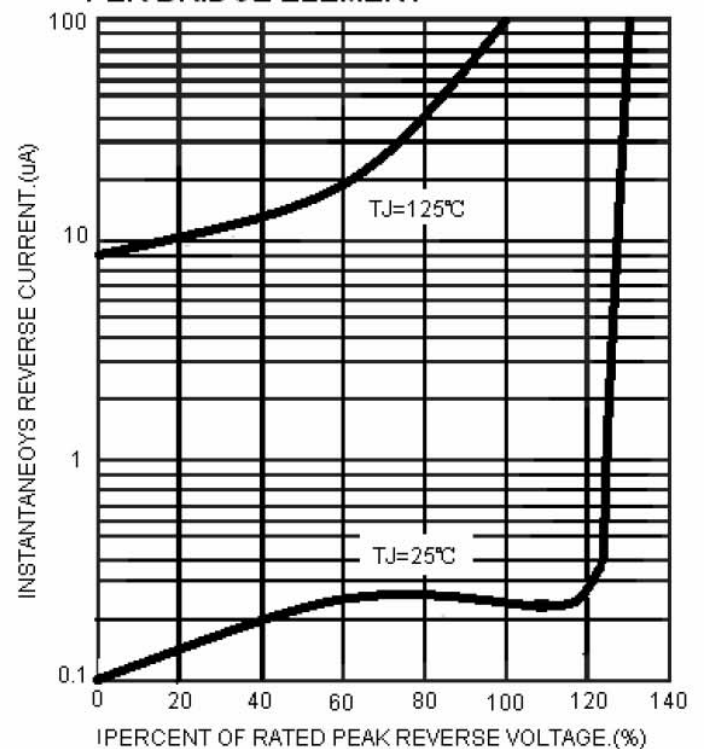


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT



Note: Specifications are subject to change without notice.