



KBL4005 THRU KBL410

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

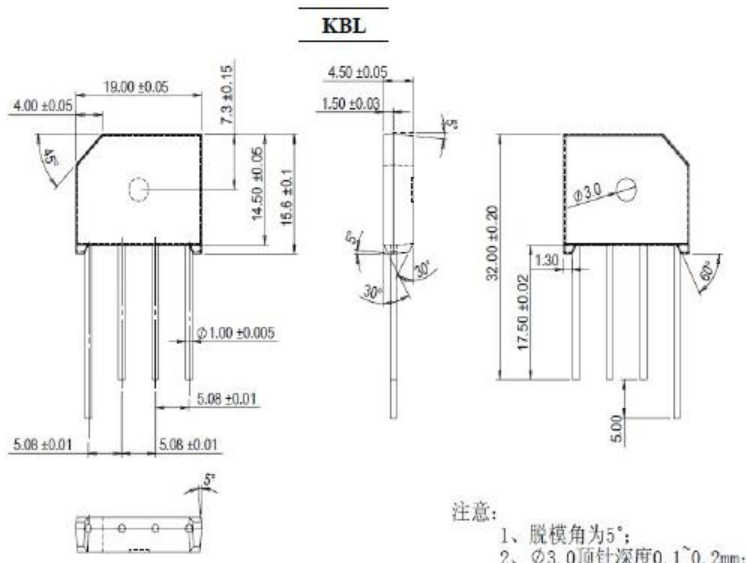
4.0 Ampere

FEATURES

- Reliable low cost construction utilizing molded plastic technique
- Ideal for printed circuit board
- Low forward voltage drop
- Low power loss,high efficiency
- Low reverse leakage current
- High surge current capability

MECHANICAL DATA

- Case: Molded plastic, KBL
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Leads solderable per MIL-STD-202 method 208 guaranteed
- Mounting position: Any
- Weight: 0.2ounce, 5.6 gram



Dimensions in millimeters

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%.

TYPE NUMBER	SYMBOLS	KBL4005	KBL401	KBL402	KBL404	KBL406	KBL408	KBL410	UNIT
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 Rectified Current 0.375"(9.5mm) Lead Length at $T_A=50^\circ C$	$I_{(AV)}$	4							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200							Amps
Maximum Forward Voltage 5.0A(Note1) at 4.0A DC and 25°C	V_F	1.1							Volts
Maximum Reverse Current at Rated DC Blocking Voltage	$T_A = 25^\circ C$	10							uA
	$T_A = 100^\circ C$	500							
Typical junction capacitance (NOTE 1)	C_J	40							pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	19							°C/W
Typical thermal resistance (NOTE 3)	$R_{\theta JL}$	2.4							°C/W
Storage Temperature Range	T_J, T_{STG}	-55 to +125							°C

Notes:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2. Thermal resistance from junction to ambient with units mounted on 3.0 x 3.0 x 0.11" thick (7.5 x 7.5 x 0.3cm) Al. Plate
3. Thermal resistance from junction to lead with units mounted on P.C.B. at 0.375" (9.5mm) lead length and 0.5 x 0.5" (12 x 12mm) copper pads



RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

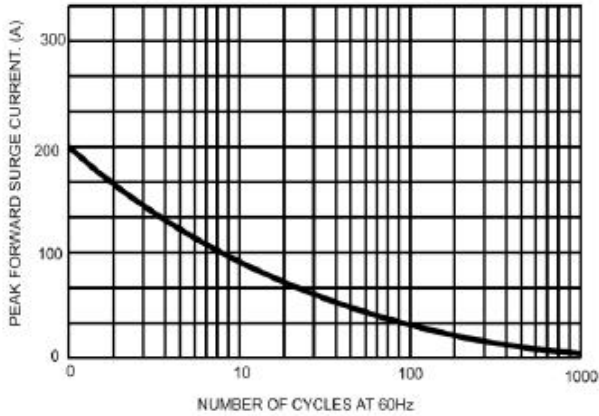


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

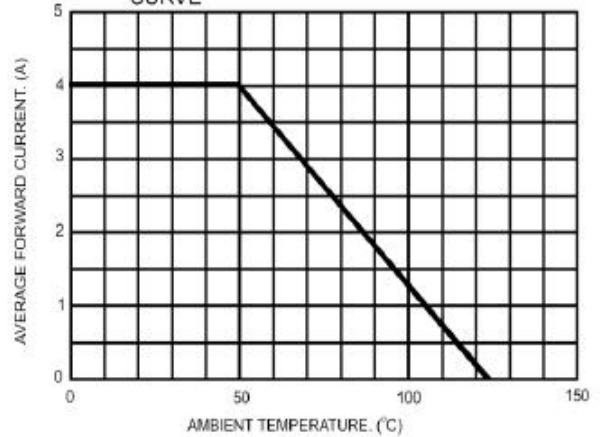


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

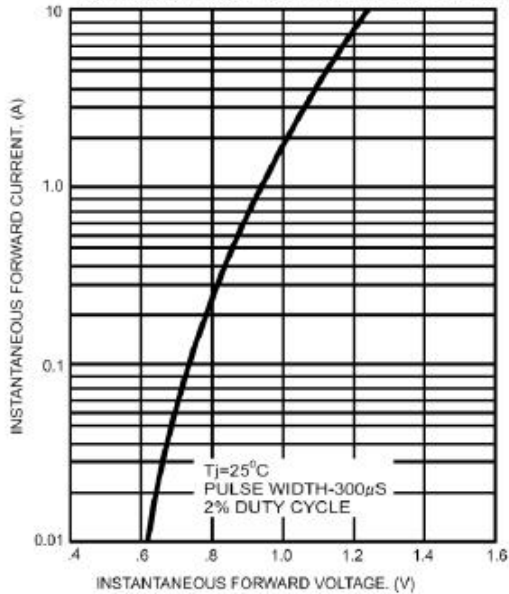


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

