

# KBL400 - KBL410

**PRV : 50 - 1000 Volts**

**Io : 4.0 Amperes**

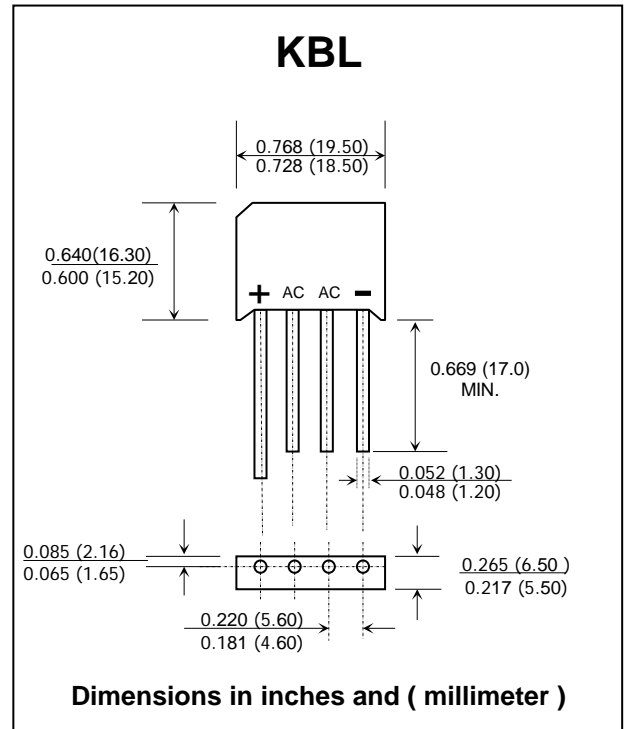
**FEATURES :**

- \* Glass passivated chip
- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Ideal for printed circuit board
- \* Pb / RoHS Free

**MECHANICAL DATA :**

- \* Case : Molded plastic
- \* Epoxy : UL94V-0 rate flame retardant
- \* Terminals : Plated lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Polarity symbols marked on case
- \* Mounting position : Any
- \* Weight : 5.15 grams

# GLASS PASSIVATED BRIDGE RECTIFIERS



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

RATING	SYMBOL	KBL 400	KBL 401	KBL 402	KBL 404	KBL 406	KBL 408	KBL 410	UNIT
Maximum Recurrent 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 Current $T_a=40^{\circ}C$	$I_{F(AV)}$	4.0							A
Peak Forward Surge Current @60Hz half-sine wave 1 cycle, $T_a = 25^{\circ}C$	$I_{FSM}$	120							A
Maximum Forward Voltage per Diode at $I_F = 2 A$	$V_F$	1.05							V
Maximum DC Reverse Current $T_a = 25^{\circ}C$ at Rated DC Blocking Voltage $T_a = 100^{\circ}C$	$I_R$	10							$\mu A$
	$I_{R(H)}$	1.0							mA
Typical Thermal Resistance ( Note 1 )	$R_{\theta JA}$	21							$^{\circ}C/W$
Operating Junction Temperature Range	$T_J$	- 55 to + 150							$^{\circ}C$
Storage Temperature Range	$T_{STG}$	- 55 to + 150							$^{\circ}C$

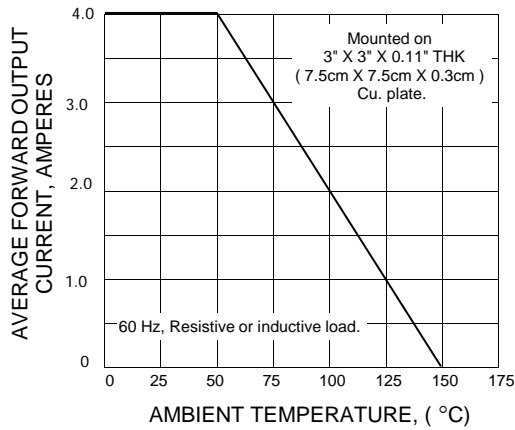
**Note :**

1) Thermal resistance from Junction to Ambient with units mounted on a 3" X 3" X 0.11" THK ( 7.5cm X 7.5cm X 0.3cm ) Cu. plate.

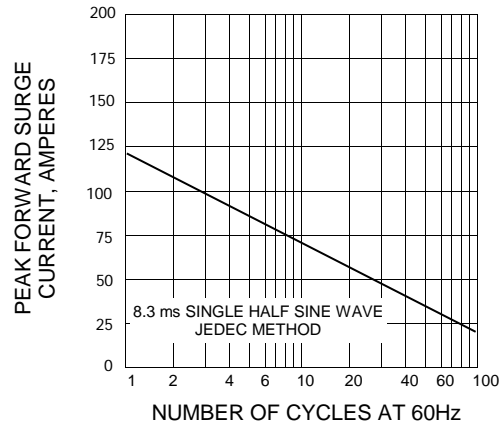


**RATING AND CHARACTERISTIC CURVES ( KBL400 - KBL410 )**

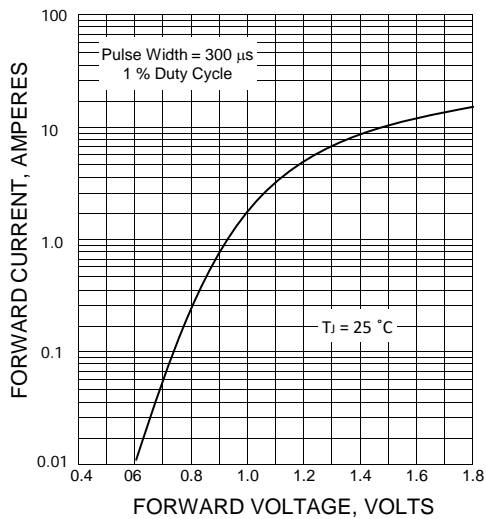
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

