

## KBL400 - KBL410

## SILICON BRIDGE RECTIFIERS

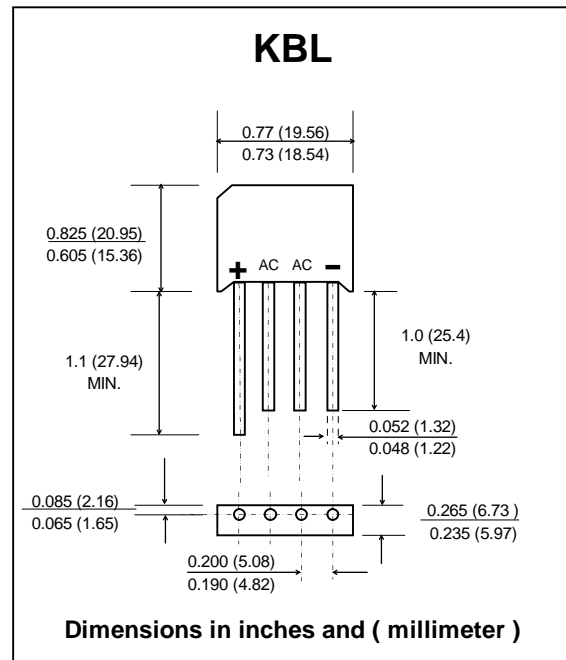
**PRV : 50 - 1000 Volts**  
**Io : 4.0 Amperes**

### FEATURES :

- \* 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-O 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



### 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%.

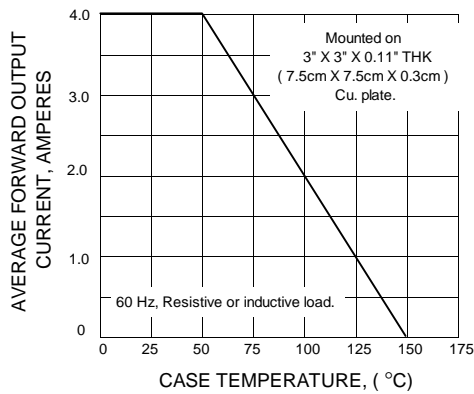
RATING	SYMBOL	KBL 400	KBL 401	KBL 402	KBL 404	KBL 406	KBL 408	KBL 410	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Current Tc=50°C	IF(AV)	4.0							A
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	IFSM	200							A
Rating for fusing ( t < 8.3 ms. )	I <sup>2</sup> t	166							A <sup>2</sup> S
Maximum Forward Voltage per Diode at IF = 4 A	VF	1.1							V
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta = 100 °C	IR	10							µA
	IR(H)	1.0							mA
Typical Thermal Resistance ( Note 1 )	RθJA	10							°C/W
Operating Junction Temperature Range	TJ	- 50 to + 150							°C
Storage Temperature Range	TSTG	- 50 to + 150							°C

#### Note :

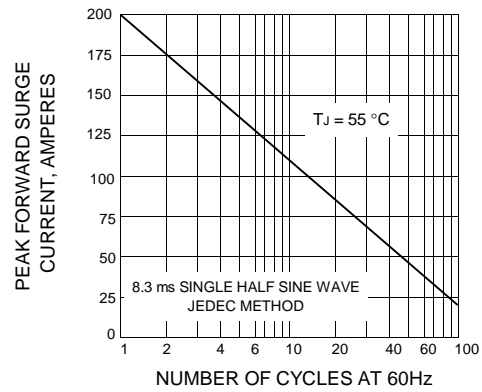
1 ) Thermal resistance from Junction to Ambient with units mounted on a 3" X 3" X 0.11" THK ( 7.5cm X 7.5cm X 0.3cm ) Cu. plate.

## RATING AND CHARACTERISTIC CURVES ( KBL400 - KBL410 )

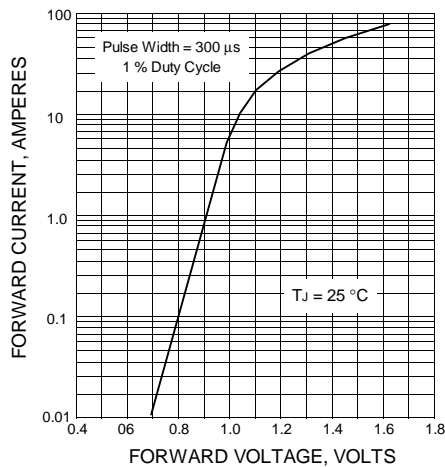
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



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



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

