

# KBL 406

**PRV : 600 Volts**  
**Io : 4.0 Amperes**

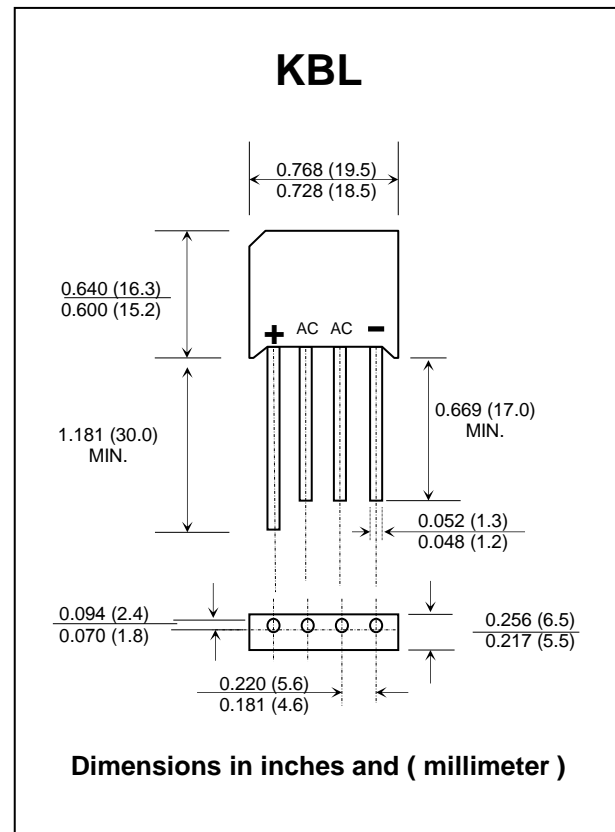
## FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Rated isolation-voltage 2000 V<sub>AC</sub>
- \* 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 SILICON 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%.

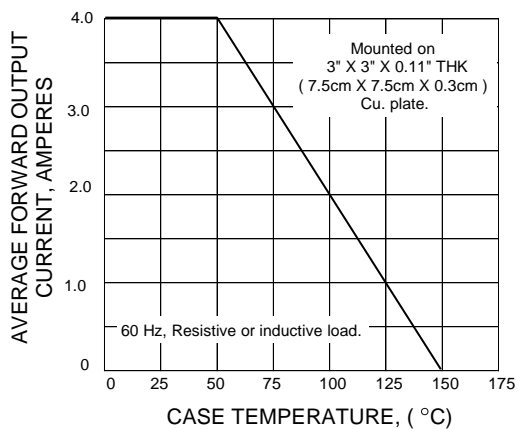
RATING	SYMBOL	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	600	V
Maximum RMS Voltage	VRMS	420	V
Maximum DC Blocking Voltage	VDC	600	V
Maximum Average Forward Current Tc=50°C	IF(AV)	4.0	A
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	IFSM	200	A
Rating 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 at Rated DC Blocking Voltage	Ta = 25 °C	IR	10 mA
	Ta = 100 °C	IR(H)	1.0 mA
Typical Thermal Resistance ( Note 1 )	R <sub>qJA</sub>	10	°C/W
Operating Junction Temperature Range	TJ	- 50 to + 150	°C
Storage Temperature Range	TSTG	- 50 to + 150	°C

### Notes :

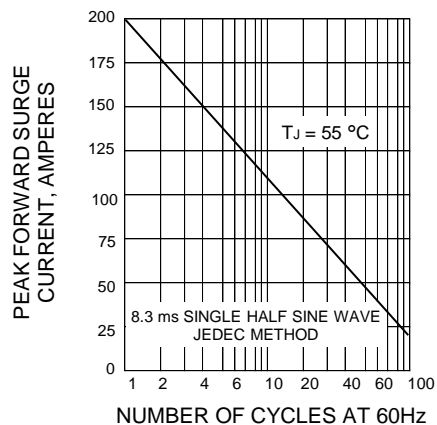
(1) Thermal resistance from Junction to Ambient with units mounted on a 3" X 3" X 0.11" THK ( 7.5cm X 7.5cm X 0.3cm ) Cu. plate.

## RATING AND CHARACTERISTIC CURVES ( KBL406 )

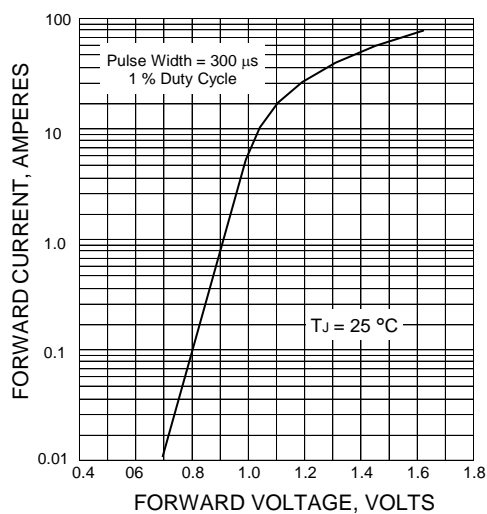
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



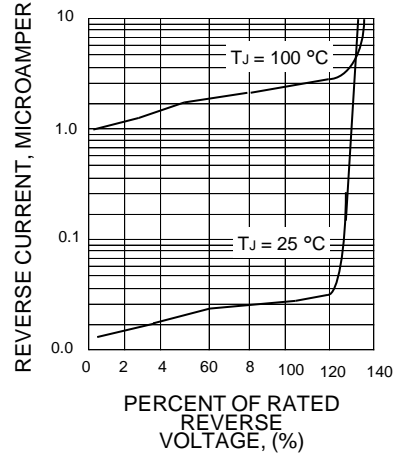
**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



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



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**



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