

**6.0A GLASS PASSIVATED BRIDGE RECTIFIER**

**Reverse Voltage - 100 to 1000 V**

**Forward Current – 6.0A**



**FEATURES**

- ◆ Surge overload rating-150 amperes peak
- ◆ Polarity:As marked on body
- ◆ Ideal for printed circuit board
- ◆ Plastic material has U/L

The flammability classification 94V-0

- ◆ Reliable low cost construction utilizing molded plastic technique

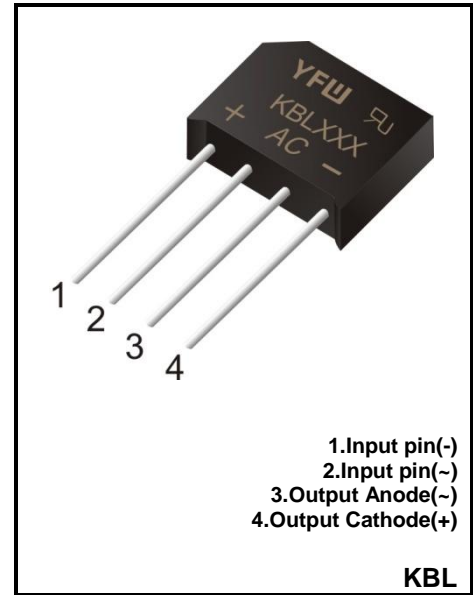
**MECHANICAL DATA**

- ◆ Case: KBL
- ◆ Terminals: Solderable per MIL-STD-202, Method 208
- ◆ Approx. Weight: 5.6g /0.2oz

**Maximum Ratings and Electrical characteristics**

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.



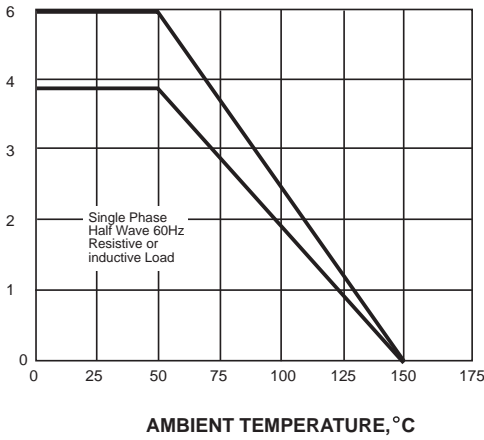
Parameter	Symbols	KBL601	KBL602	KBL604	KBL606	KBL608	KBL610	Units	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	100	200	400	600	800	1000	V	
Maximum RMS voltage	$V_{RMS}$	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	$V_{DC}$	100	200	400	600	800	1000	V	
Maximum Average Forward Rectified Current at $T_C=100^{\circ}C$ (Note 1)	$I_{(AV)}$					6.0 3.5			A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$					150			A
Forward Voltage per element at 3.0A DC and 25°C	$V_F$					1.0			V
Maximum DC Reverse Current at Rated DC Blocking Voltage @Ta=25°C @Ta=125°C	$I_R$					10 500			μA
I2t Rating for Fusing(3ms≤t≤8.3ms)	$I^2t$					175			A <sup>2</sup> S
Typical Junction Capacitance (Note1)	$C_J$					105			pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$					20			°C/W
Operating and Storage Temperature Range	$T_j, T_{stg}$					-55 ~ +150			°C

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) Unit case mounted on 7.5" x 7.5" x 0.3cm" Al plate heat sink.

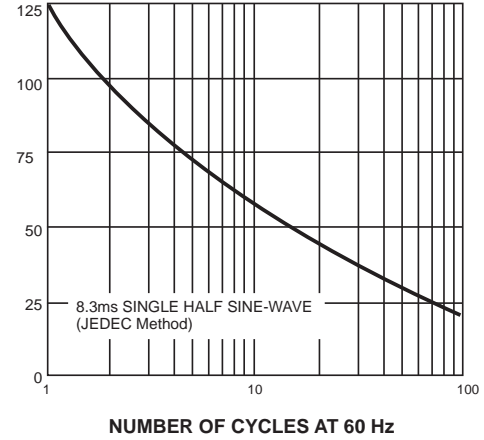
AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES

**FIG. 1- FORWARD CURRENT DERATING CURVE**

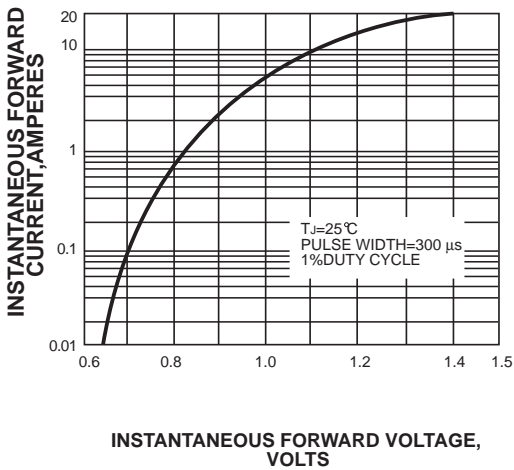


PEAK FORWARD SURGE CURRENT,  
AMPERES

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

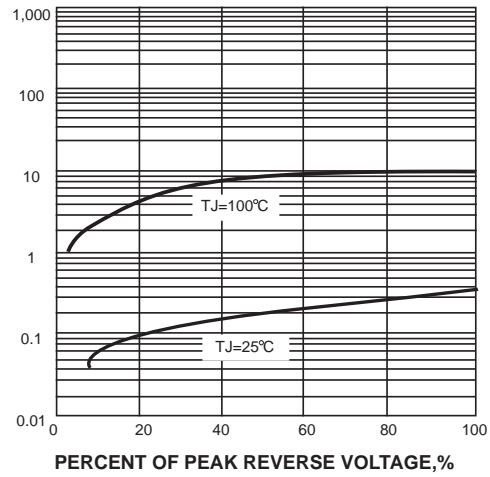


**FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

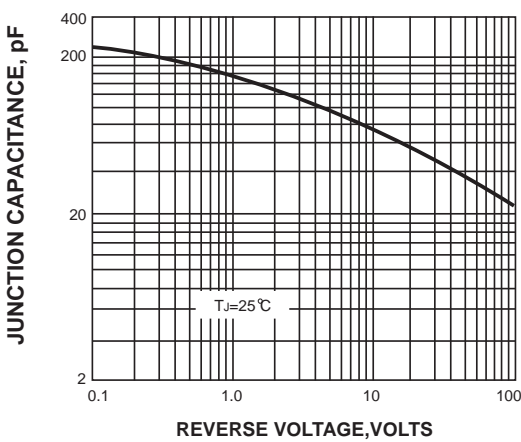


INSTANTANEOUS REVERSE CURRENT,  
MICROAMPERES

**FIG. 4-TYPICAL REVERSE CHARACTERISTICS**

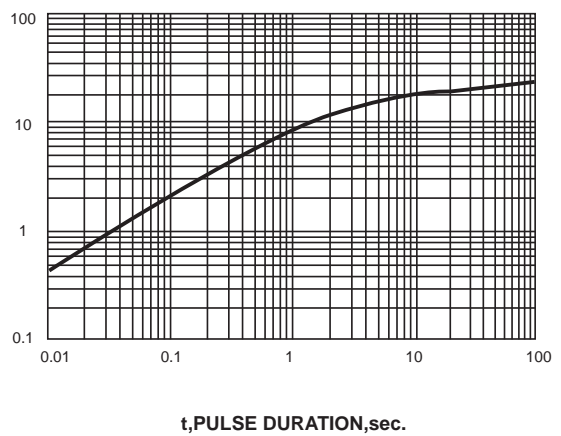


**FIG. 5-TYPICAL JUNCTION CAPACITANCE**



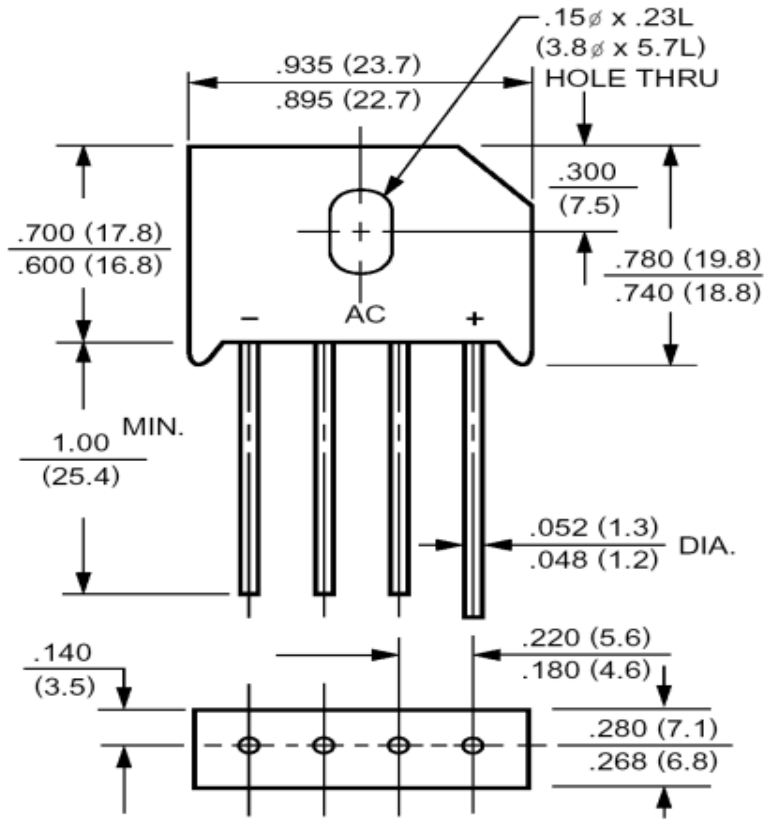
TRANSIENT THERMAL IMPEDANCE,  
°C/W

**FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE**



**Package Outline**

**KBL**



**Summary of Packing Options**

Package	Packing Description	Packing Quantity	Industry Standard
KBL	BOX	500	EIA-481-1