

**KBU**
**Features**

The plastic package carries Underwriters Laboratory  
Flammability Classification 94V-0  
Idea for printed circuit board  
Glass passivated junction chip  
Low reverse leakage  
High forward surge current capability  
High temperature soldering guaranteed  
260 C/10 seconds at terminals

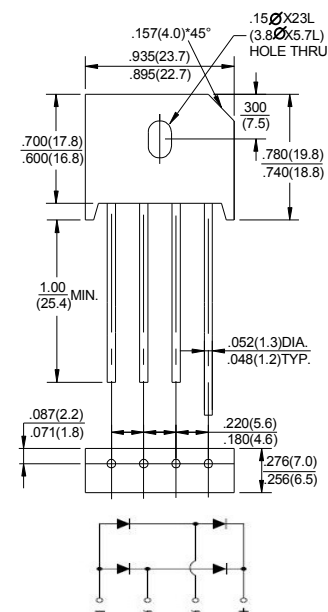
**Mechanical Data**

**Case** : Molded plastic body

**Terminals** : Solder plated, solderable per MIL-STD-750,Method 2026

**Polarity** : Polarity symbol marking on body

**Mounting Position** : Any



Dimensions in inches and (millimeters)

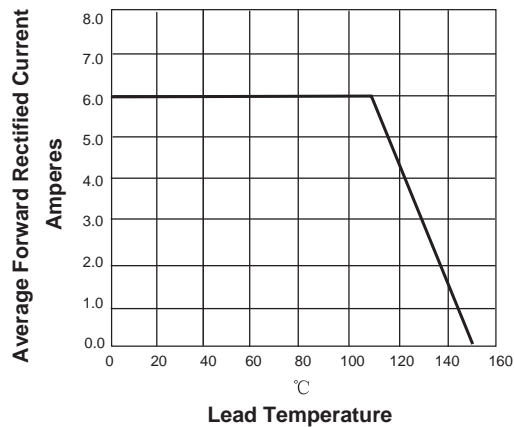
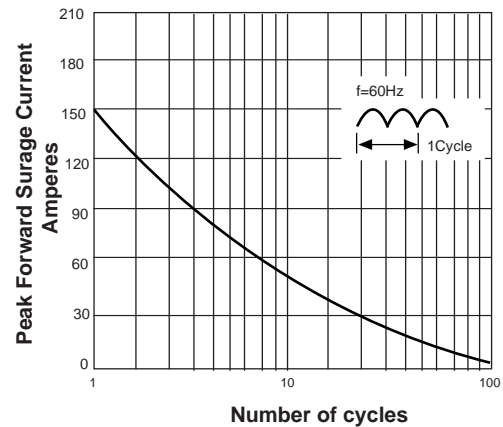
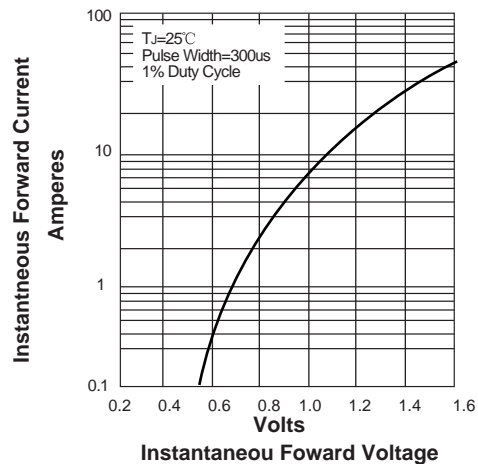
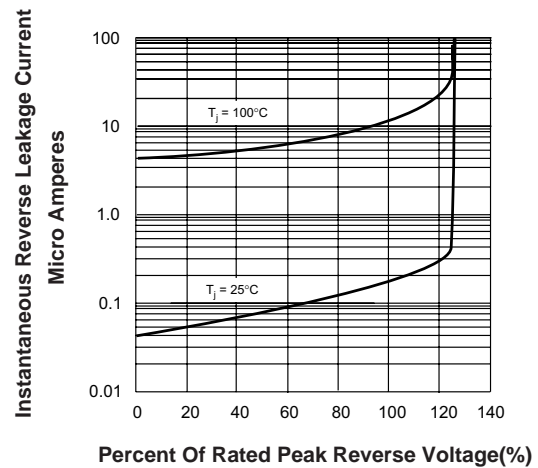
**Maximum Ratings And Electrical Characteristics**

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

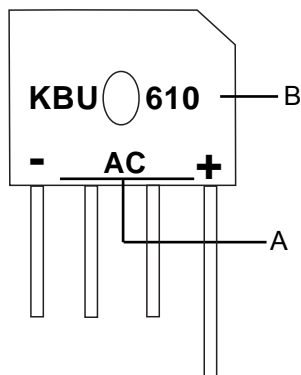
Parameter	SYMBOLS	KBU610	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	1000	V
Maximum RMS voltage	$V_{RMS}$	700	V
Maximum DC blocking voltage	$V_{DC}$	1000	V
Maximum average forward rectified current with heatsink	$I_{(AV)}$	6.0	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	150.0	A
Rating for fusing ( $t=8.3ms$ , $T_A=25^{\circ}C$ )	$I_t^2$	93.3	$A^2s$
Maximum instantaneous forward voltage at 6.0A	$V_F$	1.10	V
Maximum DC reverse current $T_A=25^{\circ}C$ at rated DC blocking voltage $T_A=100^{\circ}C$	$I_R$	5.0 200	$\mu A$
Typical junction capacitance (Note 1)	$C_J$	45.0	pF
Typical thermal resistance	$R_{\theta JA}$	35.0	$^{\circ}C/W$
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150	$^{\circ}C$

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

## Ratings And Characteristic Curves

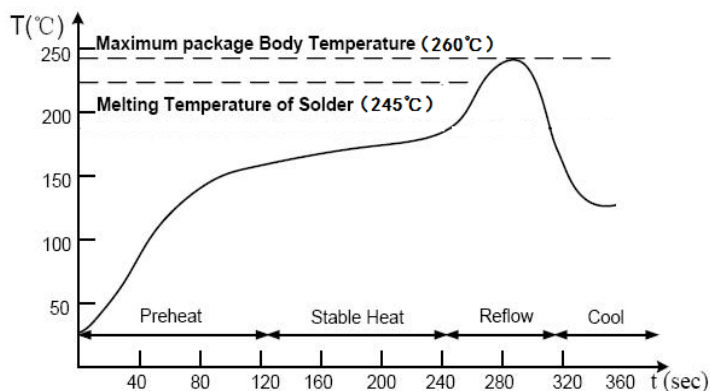
**FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT**

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

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

**FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS**


## Marking



Symbol	Explanation
A	Polarity Symbol
B	Product Name

## Suggested Soldering Temperature Profile



### Note

Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.

The device can be exposed to a maximum temperature of 260°C for 10 seconds.

Devices can be cleaned using standard industry methods and solvents.

If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

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