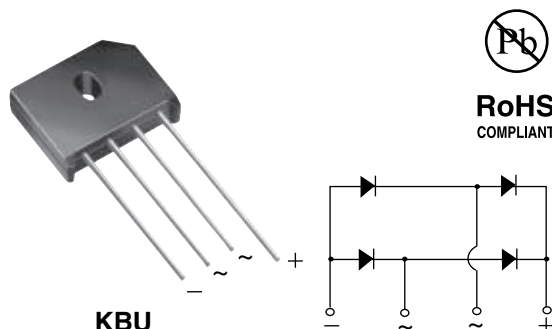


Features

- Ideal for P.C. Board mounting
- This series is UL listed under the Recognized Component Index, file number E142814
- High temperature soldering:
260°C/10 seconds at terminals
- High surge current capability
- Component in accordance to
RoHS 2011/65/EU and WEEE 2002/96/EC



Mechanical Data

- Case:KBU
Molding compound meets
- UL 94 V-0 flammability rating
MIL-STD-750, Method 2026
- **Polarity:** Polarity symbols molded on body

Major Ratings and Characteristics

$I_{F(AV)}$	6.0A
V_{RRM}	50 V to 1000 V
I_{FSM}	250A
V_F	1.1V
$T_J \text{ max.}$	150 °C

Maximum Ratings & Thermal Characteristics

$T_A = 25\text{ °C}$ unless otherwise noted

Parameter	Symbol	KBU 6005	KBU 601	KBU 602	KBU 604	KBU 606	KBU 608	KBU 610	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS bridge input 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 rectified output current(see Fig.1)	I _{F(AV)}	6							A
Peak forward surge current single sine-wave superimposed on rated load	I _{FSM}	250							A
Operating junction and storage temperature range	T _J , T _{STG}	-50 to +150							℃
Thermal resistance from junction to ambient	R _{θJA} ⁽¹⁾	8.6							℃/W
Thermal resistance from junction to case	R _{θJC} ⁽²⁾	3.1							

Electrical Characteristics

$T_A = 25\text{ °C}$ unless otherwise noted

Parameter		Symbol	KBU 6005	KBU 601	KBU 602	KBU 604	KBU 606	KBU 608	KBU 610	Unit
Maximum instantaneous forward drop per diode at I _F =6.0A		V _F	1.1							V
Maximum DC reverse current at rated DC blocking voltage per diode	T _A =25℃	I _R	10							μA
	T _A =125℃		500							

Notes: (1) PCB mounted on 0.5" x 0.5" (12 mm x 12 mm) copper pads, 0.375"(9.5 mm) lead length

(2) Mounted on a 2.6" x 1.4"x 0.06" thick (6.5 cm x 3.5 cm x 0.15 cm) Al. plate

Characteristic Curves ($T_A=25\text{ }^{\circ}\text{C}$ unless otherwise noted)

Fig. 1 - Derating Curve Output Rectified Current

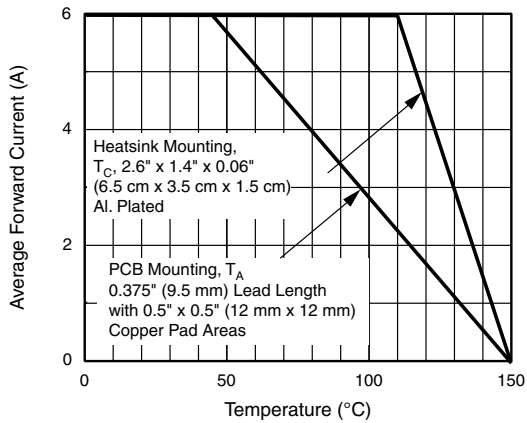


Fig. 2 - Typical Instantaneous Forward Characteristics Per Diode

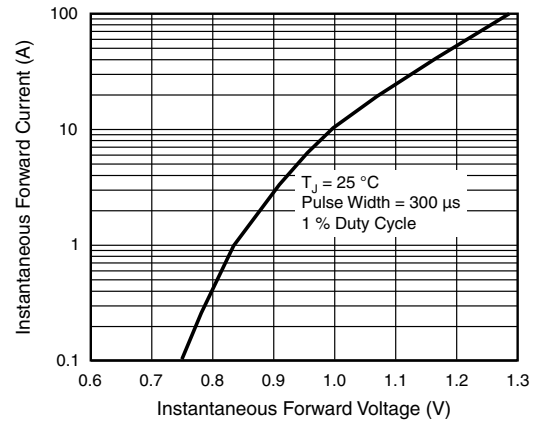


Fig. 3 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

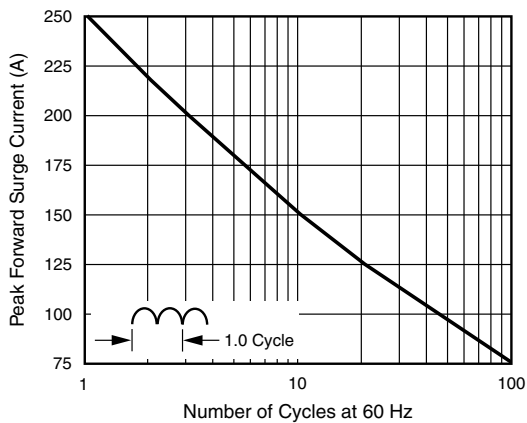
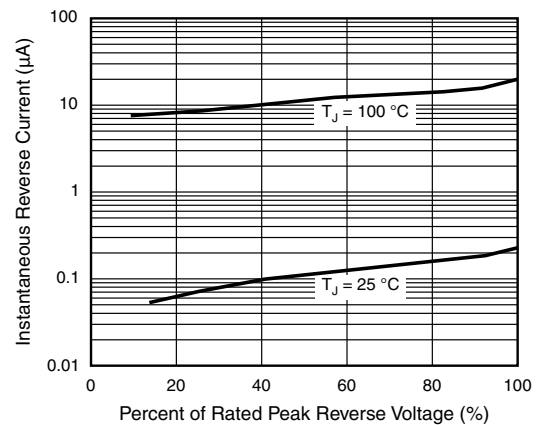
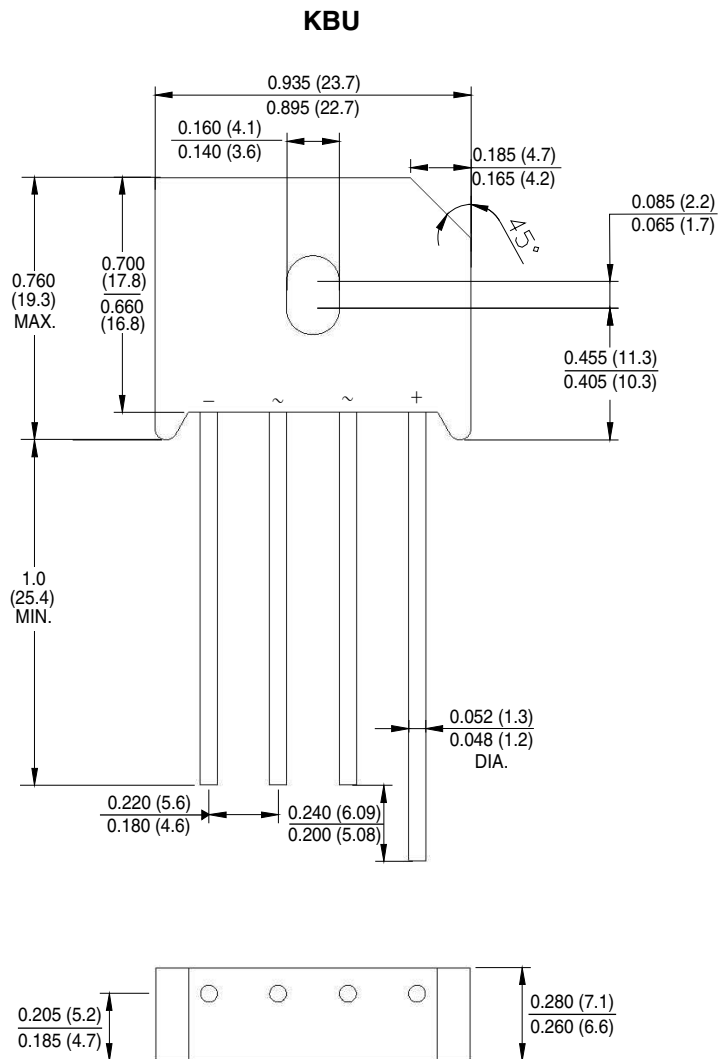


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode



Package Outline



Dimensions in inches and (millimeters)

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