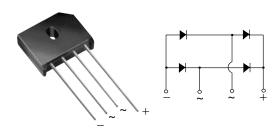


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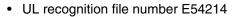
Single-Phase Bridge Rectifier



^	Style	VDII
Case	Sivie	NDU

PRIMARY CHARACTERISTICS							
I _{F(AV)}	6 A						
V _{RRM}	50 V to 1000 V						
I _{FSM}	200 A						
I _R	5 μΑ						
V_{F}	1.0 V						
T _J max.	150 °C						

FEATURES





· Ideal for printed circuit boards



High surge current capability

High case dielectric strength of 1500 V_{RMS}

ROHS COMPLIANT

Solder dip 260 °C, 40 s

 Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

TYPICAL APPLICATIONS

General purpose use in ac-to-dc bridge full wave rectification for monitor, TV, printer, SMPS, adapter, audio equipment, and home appliances applications.

MECHANICAL DATA

Case: KBU

Epoxy meets UL 94V-0 flammability rating

Terminals: Silver plated leads, solderable per

J-STD-002 and JESD22-B102 E4 suffix for consumer grade **Polarity:** As marked on body

Mounting Torque: 10 cm-kg (8.8 inches-lbs) max. **Recommended Torque:** 5.7 cm-kg (5 inches-lbs)

MAXIMUM RATINGS (T _A = 25 °C unless otherwise noted)									
PARAMETER	SYMBOL	KBU6A	KBU6B	KBU6D	KBU6G	KBU6J	KBU6K	KBU6M	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS 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
$ \begin{array}{ll} \text{Maximum average forward} & & T_{\text{C}} = 100 ^{\circ}\text{C} ^{(1)(2)} \\ \text{rectified output current at} & & T_{\text{A}} = 40 ^{\circ}\text{C} ^{(3)} \\ \end{array} $	I _{F(AV)}	6.0 6.0				Α			
Peak forward surge current single sine-wave superimposed on rated load	I _{FSM}	SM 250			Α				
Operating junction and storage temperature range	T _J , T _{STG}	T _{STG} - 50 to + 150				°C			

Notes:

- (1) Recommended mounted position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw
- (2) Thermal resistance from junction to ambient with units in free air, P.C.B. mounted on 0.5 x 0.5" (12 x 12 mm) copper pads, 0.375" (9.5 mm) lead length
- (3) Thermal resistance from junction to case with units mounted on a 2.6 x 1.4 x 0.06" thick (6.5 x 3.5 x 0.15 cm) aluminum plate

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ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)										
PARAMETER	TEST CONDITIONS	SYMBOL	KBU6A	KBU6B	KBU6D	KBU6G	KBU6J	KBU6K	KBU6M	UNIT
Maximum instantaneous forward drop per diode	6.0 A	V _F				1.0				V
Maximum DC reverse current at rated DC blocking voltage per diode	T _A = 25 °C T _A = 125 °C	I _R				5.0 1.0				μA mA

THERMAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)								
PARAMETER	SYMBOL KBU6A KBU6B KBU6D KBU6G KBU6J KBU6K KBU6M UNIT							UNIT
Typical thermal resistance (1)	$R_{ hetaJA} \ R_{ hetaJC}$	8.6 3.1				°C/W		

Note:

(1) Thermal resistance from junction to ambient with units in free air, P.C.B. mounted on 0.5 x 0.5" (12 x 12 mm) copper pads, 0.375" (9.5 mm) lead length

ORDERING INFORMATION (Example)									
PREFERRED P/N	PREFERRED P/N UNIT WEIGHT (g) PREFERRED PACKAGE CODE BASE QUANTITY DELIVERY MODE								
KBU6J-E4/51	8.0	51	250	Anti-static PVC tray					

RATINGS AND CHARACTERISTICS CURVES

(T_A = 25 °C unless otherwise noted)

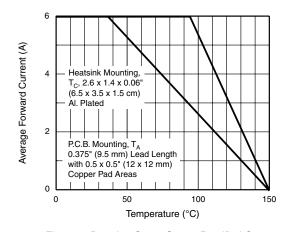


Figure 1. Derating Curve Output Rectified Current

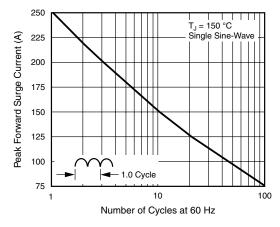


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Diode



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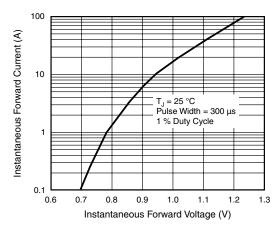


Figure 3. Typical Instantaneous Forward Characteristics Per Diode

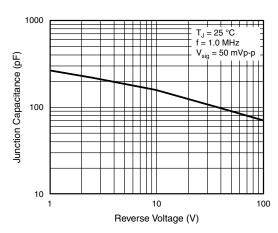


Figure 5. Typical Junction Capacitance Per Diode

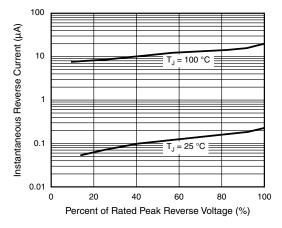
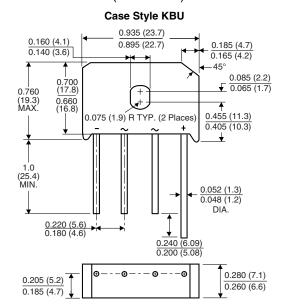


Figure 4. Typical Reverse Leakage Characteristics Per Diode

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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