

Single-Phase Bridge Rectifier

Reverse Voltage 50 and 1000 V
Forward Current 10 A

Features

- Plastic material used carries Underwriters Laboratory Flammability Classification 94V-0
- This series is UL listed under the Recognized Component Index
- High case dielectric strength of 1500 VRMS
- Ideal for printed circuit boards
- High surge current capability
- High temperature soldering guaranteed: 250°C/10 seconds, 0.375 (9.5mm) lead length, 5 lbs. (2.3kg) tension

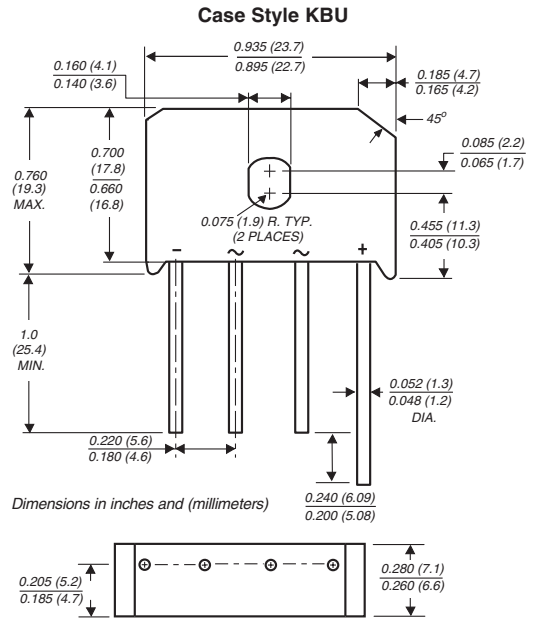
Mechanical Data

Case: Molded plastic body

Terminals: Plated leads solderable per MIL-STD-750, Method 2026

Mounting Position: Any (NOTE 1)

Weight: 0.3 oz., 8.0 g



Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

	Symbols	KBU 10A	KBU 10B	KBU 10D	KBU 10G	KBU 10J	KBU 10K	KBU 10M	Units
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
Maximum average forward rectified output current at $T_C=100^\circ\text{C}$ ⁽¹⁾ ⁽³⁾ $T_A=45^\circ\text{C}$ ⁽²⁾	$I_{F(AV)}$	10 6.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) $T_J=150^\circ\text{C}$	I_{FSM}	300							A
Typical thermal resistance per leg ⁽²⁾	$R_{\theta JA}$ $R_{\theta JC}$	18 3.0							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +150							°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Maximum instantaneous forward drop per leg at 10 A	V_F				1.0				V
Maximum DC reverse current at rated DC blocking voltage per leg $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	I_R				10 1.0				μA mA

Notes:

- (1) Recommended mounted position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw
- (2) Units mounted in free air, no heatsink, P.C.B. at 0.375" (9.5mm) lead length with 0.5 x 0.5" (10 x 10mm)
- (3) Units mounted on a 3.0 x 3.0 x 0.11" thick (75 x 75 x 3mm) Al. Plate heatsink



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

Fig. 1 - Derating Curve Output Rectified Current

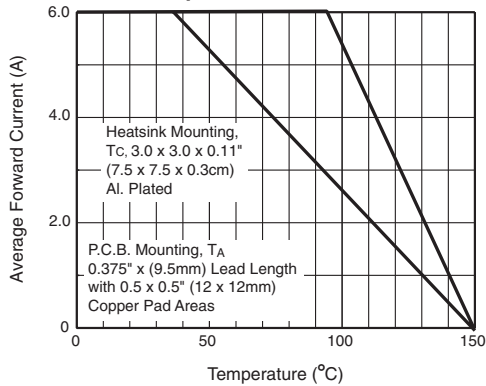


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

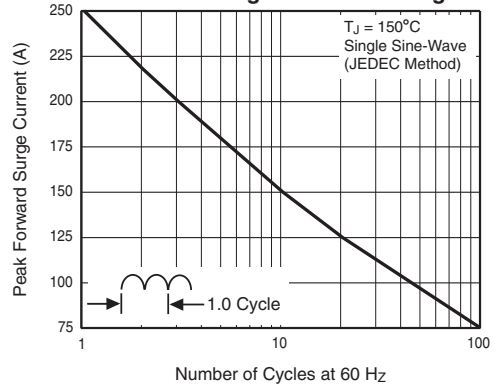


Fig. 3 - Typical Instantaneous Forward Characteristics Per Leg

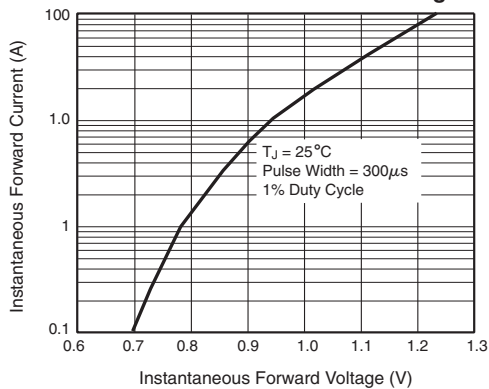


Fig. 4 - Typical Reverse Leakage Characteristics

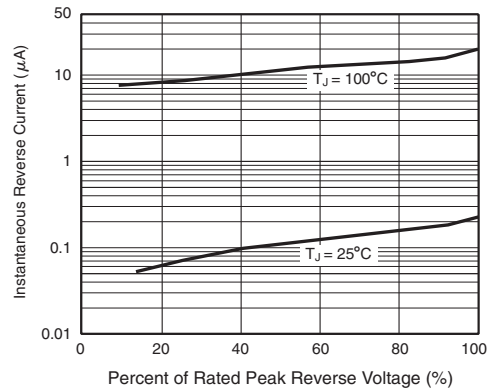


Fig. 5 - Typical Junction Capacitance Per Leg

