

DATA SHEET

KBU6A~KBU6K

SILICON SINGLE-PHASE BRIDGE RECTIFIER
VOLTAGE - 50 to 800 Volts CURRENT - 6.0 Amperes

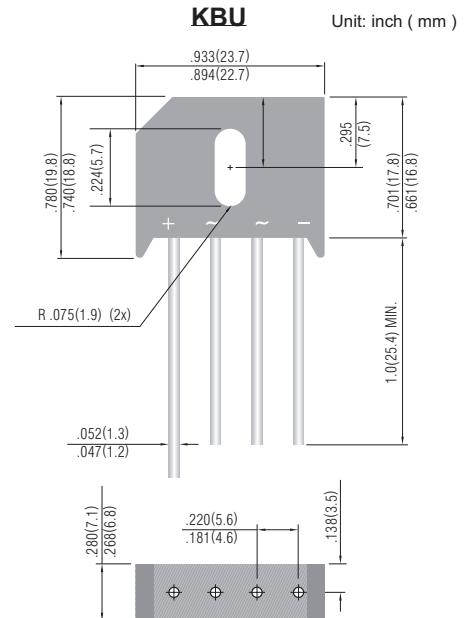
Recongized File # E111753

FEATURES

- Plastic material has Underwriters Laboratory Flammability Classification 94V-O
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Surge overload rating: 175 Amperes peak
- High temperature soldering guaranteed:
260°C/10 seconds/.375"(9.5mm) lead length at 5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: Reliable low cost construction utilizing molded plastic technique
Terminals: Leads solderable per MIL-STD-202, Method 208
Mounting position: Any
Mounting torque: 5 in. lb. Max.
Weight: 0.3 ounce, 8.0 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.
For Capacitive load derate current by 20%.

	KBU6A	KBU6B	KBU6D	KBU6G	KBU6J	KBU6K	UNIT
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	V
Maximum RMS Input Voltage	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	V
Maximum Average Forward $T_C=100^{\circ}\text{C}$ Rectified Output Current at $T_A=40^{\circ}\text{C}$	6.0 6.0						A
I^2t Rating for fusing ($t < 8.3\text{ms}$)	127						A ² sec
Peak Forward Surge Current single sine-wave superimposed on rated load (JEDEC method)	175						A _{pk}
Maximum Instantaneous Forward Voltage Drop per element at 6.0A	1.0						V _{pk}
Maximum Reverse Leakage at rated $T_A=25^{\circ}$ CDc Blocking Voltage per element $T_C=100^{\circ}\text{C}$	10 1000						μA μA
Typical Thermal Resistance per leg(Note 2) $R_{\theta JA}$	8.6						$^{\circ}\text{C} / \text{W}$
Typical Thermal Resistance per leg(Note 3) $R_{\theta JC}$	3.1						$^{\circ}\text{C} / \text{W}$
Operating and Storage Temperature Range, T_J, T_{STG}	-55 to +150						$^{\circ}\text{C}$

NOTES:

1. Recommended mounting 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"(12 x 12mm)copper pads.
3. Units Mounted on a 2.0 x 1.6" x 0.3" thick (5 x 4 x 0.8cm) AL plate.

RATING AND CHARACTERISTIC CURVES

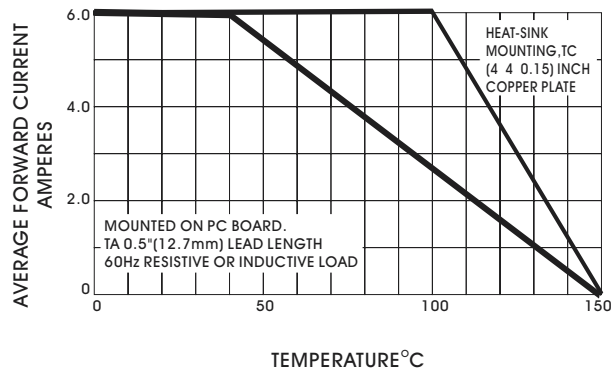


Fig. 1- DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

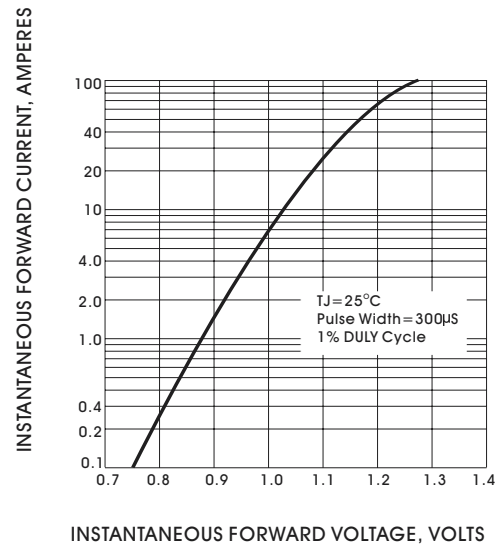


Fig. 2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT

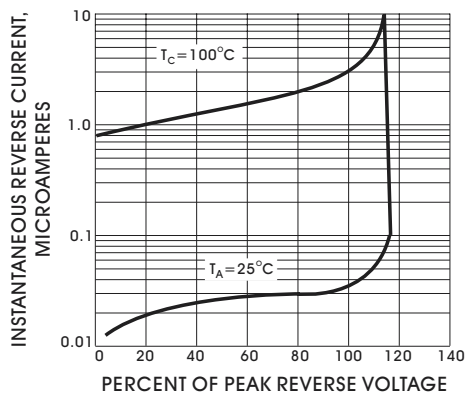


Fig. 3- TYPICAL REAK REVERSE CHARACTERISTICS

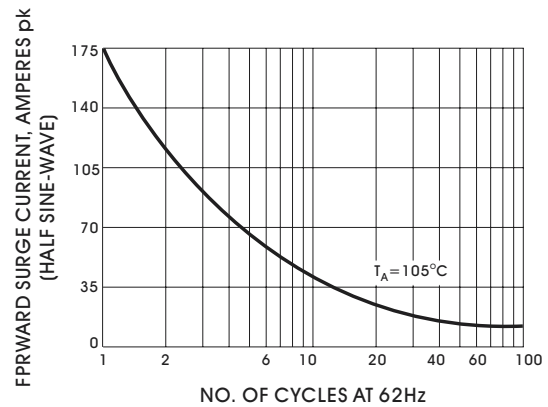


Fig. 4- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

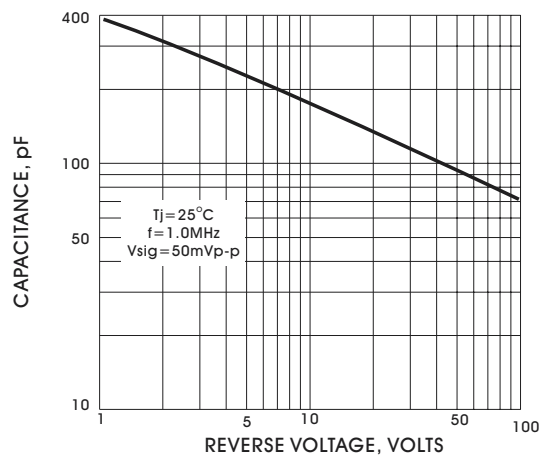


Fig. 5- TYPICAL JUNCTION CAPACITANCE PER ELEMENT