



DATA SHEET

KBU4A~KBU4K

SILICON SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE 50 to 800 Volts **CURRENT** 4.0 Amperes

KBU

Unit: inch (mm)

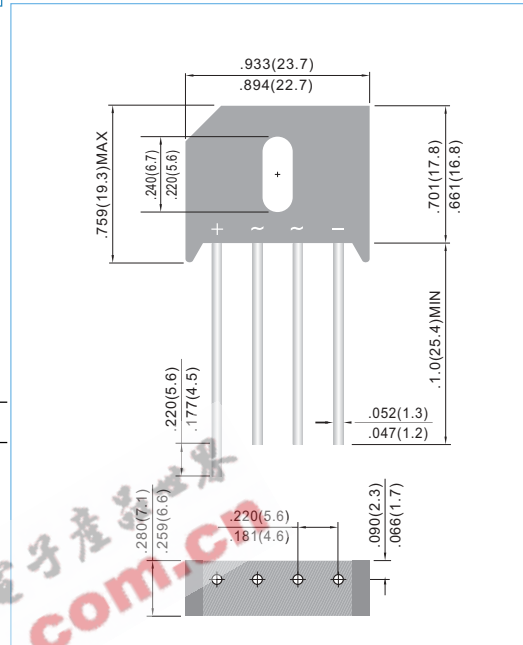
Recognized File # E111753

FEATURES

- Plastic material has Underwriters Laboratory Flammability Classification 94V-O
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique.
- High temperature soldering guaranteed:
260°C/10 seconds/.375"(9.5mm) lead length at 5 lbs. (2.3kg) tension
- Both normal and Pb free product are available :
Normal : 80~95% Sn, 5~20% Pb
Pb free: 98.5% Sn above

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%.

PARAMETER	SYMBOL	KBU4A	KBU4B	KBU4D	KBU4G	KBU4J	KBU4K	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	V
Maximum RMS Bridge Input Voltage	V_{RMS}	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	V
Maximum Average Forward Rectified Output Current at $T_C=100^\circ C$ Rectified Output Current at $T_A=40^\circ C$	I_{AV}	4.0						A
I ² t Rating for fusing ($t < 8.3ms$)	I^2t	93						A ² sec
Peak Forward Surge Current single sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150						Apk
Maximum Forward Voltage Drop per Bridge Element at 4.0A	V_F	1.0						Vpk
Maximum Reverse Leakage Current at Rated @ $T_A=25^\circ C$ Dc Blocking Voltage @ $T_A=100^\circ C$	I_R	5 1000						uA
Typical Thermal Resistance per leg (Note 2) (Note 3)	$R_{\theta JA}$ $R_{\theta JC}$	8.6 3.1						°C/W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to + 150						°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

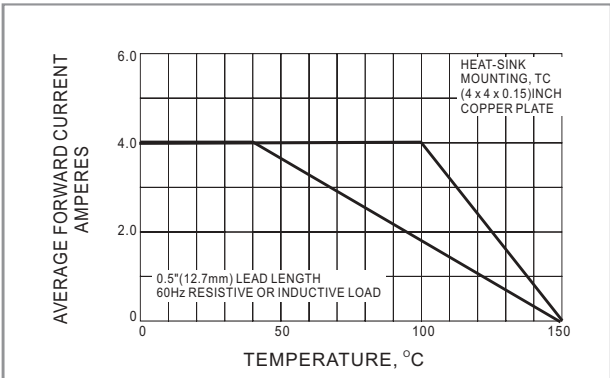


Fig.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

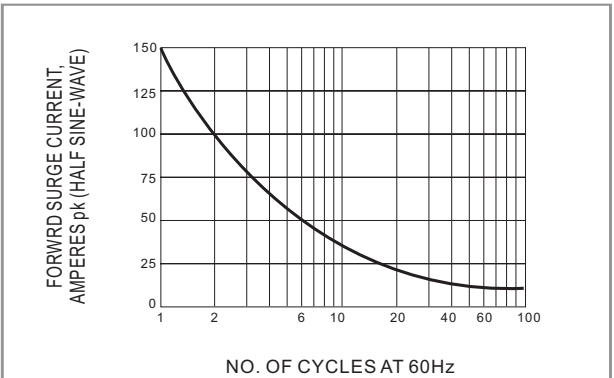


Fig.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

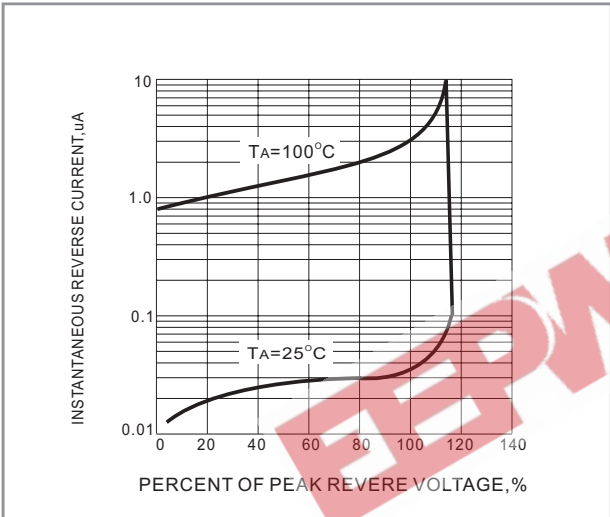


Fig.3 - TYPICAL REVERSE CHARACTERISTICS

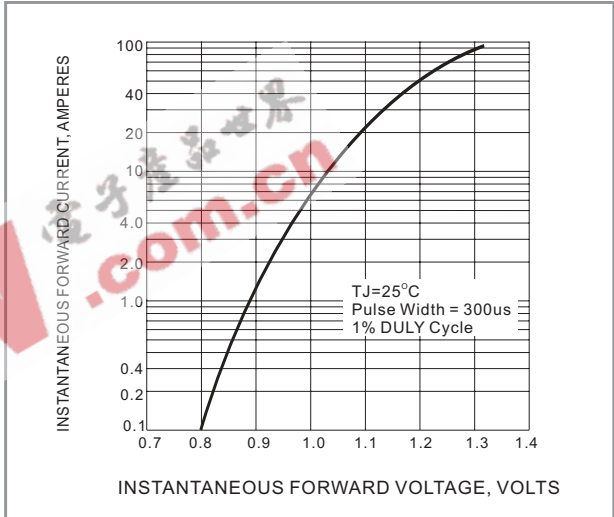


Fig.4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT

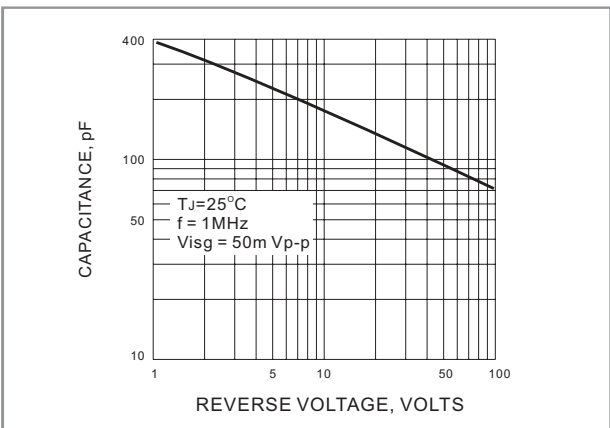


Fig.5 - TYPICAL JUNCTION CAPACITANCE