

DATA SHEET

KBU8A~KBU8K

SILICON SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE 50 to 800 Volts **CURRENT** 8.0 Amperes

KBU

Unit: inch (mm)

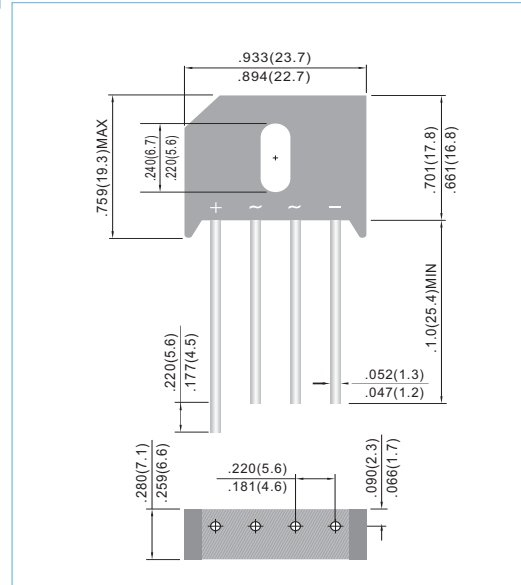
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FEATURES

- 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	KBU8A	KBU8B	KBU8D	KBU8G	KBU8J	KBU8K	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 $T_c=100^{\circ}\text{C}$ Rectified Output Current at $T_A=40^{\circ}\text{C}$	I_{AV}	8.0						A
Pt Rating for fusing ($t < 8.3\text{ms}$)	P_t	166						A ² sec
Peak Forward Surge Current single sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200						Apk
Maximum Forward Voltage Drop per Bridge Element at 6.0A	V_F	1.0						Vpk
Maximum Reverse Leakage Current at Rated @ $T_A=25^{\circ}\text{C}$ Dc Blocking Voltage @ $T_A=100^{\circ}\text{C}$	I_R	10 1000						μA
Typical Thermal Resistance per leg (Note 2)	$R_{\theta JA}$	18.0						$^{\circ}\text{C/W}$
Typical Thermal Resistance per leg (Note 3)	$R_{\theta JC}$	3.0						$^{\circ}\text{C/W}$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to + 150						$^{\circ}\text{C}$

NOTES:

- Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw.
- 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.
- 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

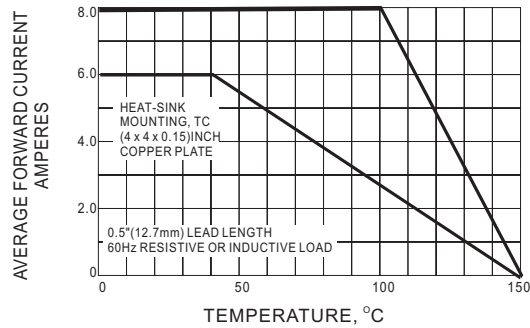


Fig.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

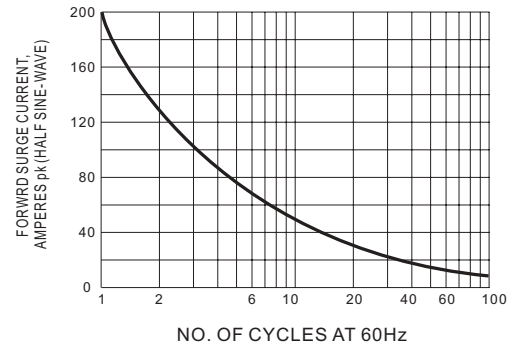


Fig.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

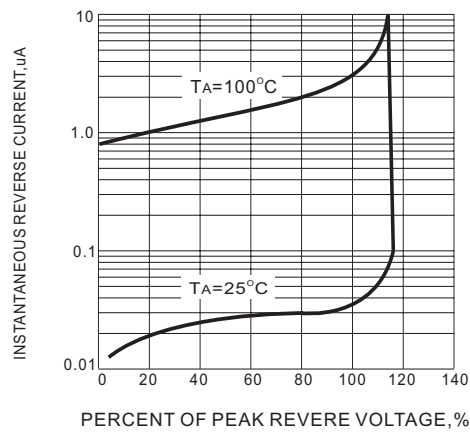


Fig.3 - TYPICAL REVERSE CHARACTERISTICS

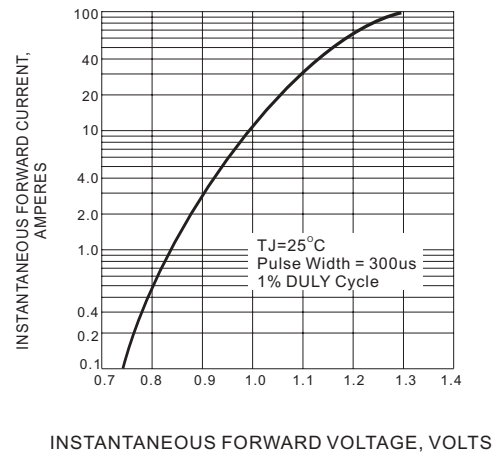


Fig.4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT

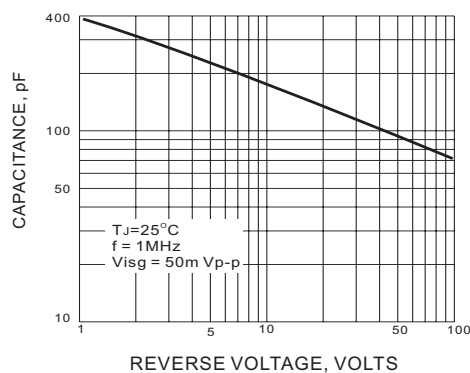


Fig.5 - TYPICAL JUNCTION CAPACITANCE