PANJIT SEMI CONDUCTOR

DATA SHEET

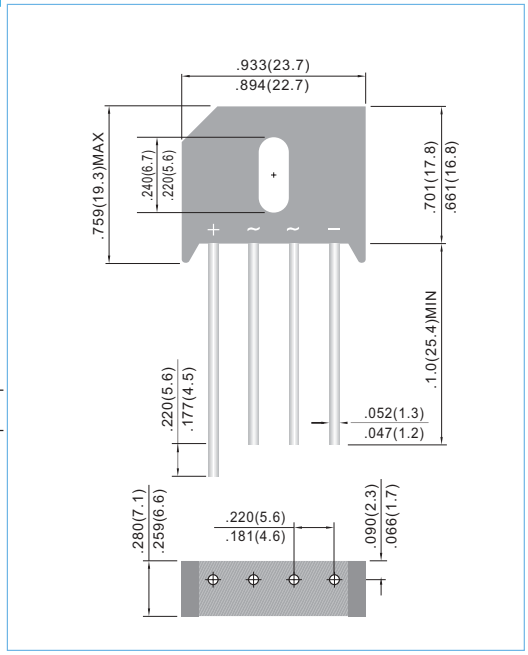
KBU6A~KBU6K

SILICON SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE 50 to 800 Volts **CURRENT** 6.0 Amperes

Recongnized File # E111753

KBU Unit: inch (mm)



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

MECHANICALDATA

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°Cambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.
For Capacitive load derate current by 20%.

PARAMETER	SYMBOL	KBU6A	KBU6B	KBU6D	KBU6G	KBU6J	KBU6K	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 Tc=100 °C Rectified Output Current at TA=40 °C	I_{AV}	6.0						A
I²t Rating for fusing (t<8.3ms)	I²t	127						A²sec
Peak Forward Surge Current single sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	175						Apk
Maximum Forward Voltage Drop per Bridge Element at 6.0A	V_F	1.0						Vpk
Maximum Reverse Leakage Current at Rated @ TA=25°C Dc Blocking Voltage @ TA=100°C	I_R	5 1000						uA
Typical Thermal Resistance per leg (Note 2) (Note 3)	RθJA RθJC	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

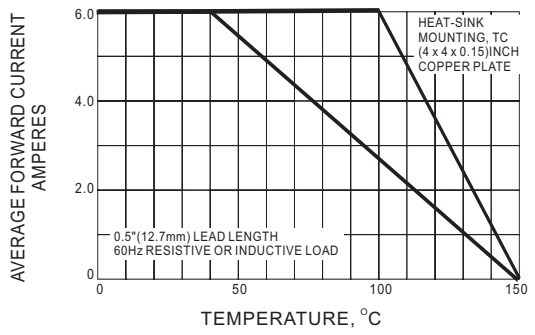


Fig.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

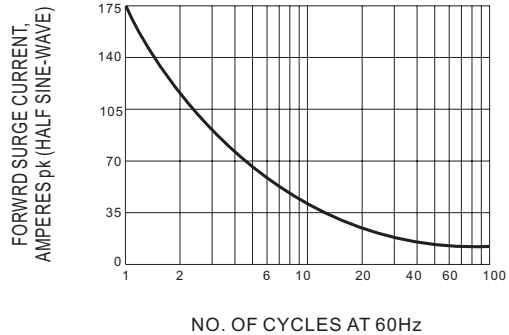


Fig.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

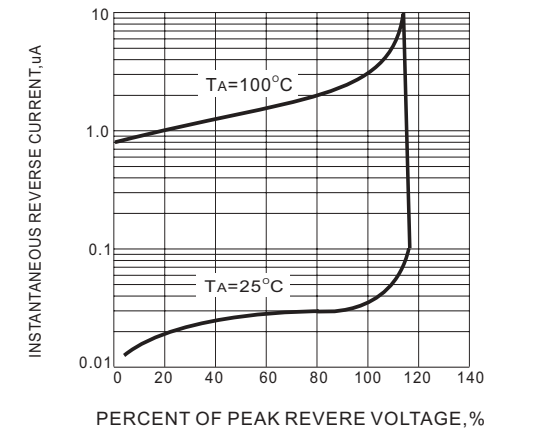


Fig.3 - TYPICAL REVERSE CHARACTERISTICS

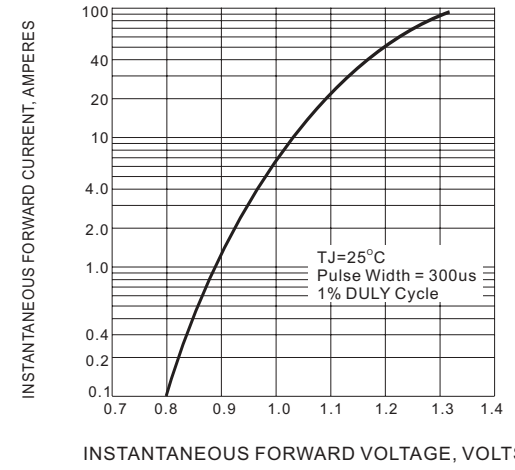


Fig.4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT

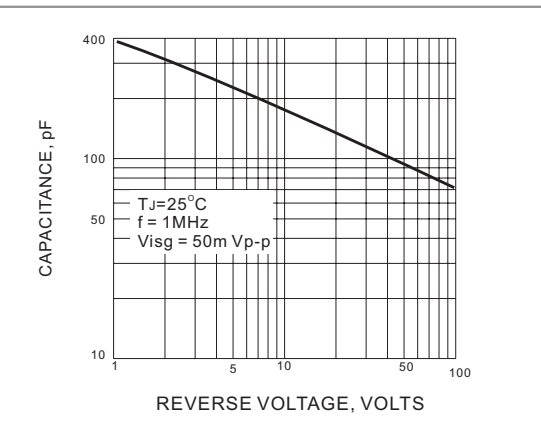


Fig.5 - TYPICAL JUNCTION CAPACITANCE