KBU6A THRU KBU6M

SINGLE-PHASE SILICON BRIDGE RECTIFIER

REVERSE VOLTAGE: 50 to 1000 V

FORWARD CURRENT: 6 A

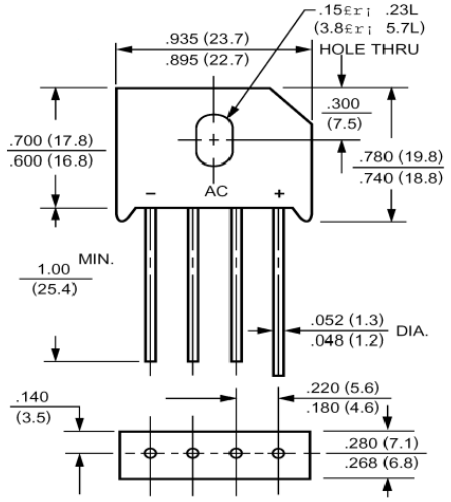
Features

- Reliable low cost construction utilizing molded plastic technique
- Low forward voltage drop
- Low reverse leakage current
- High surge current capability
- Ideal for printed circuit board

Mechanical Data

- **Case:** Molded plastic, KBU
- **Epoxy:** UL 94V-0 rate flame retardant
- **Terminals:** leads solderable per MIL-STD-202, Method 208 guaranteed
- **Mounting Position:** Any

KBU



Dimensions in inches and (millimeters)

Absolute Maximum Ratings and Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	KBU6A	KBU6B	KBU6D	KBU6G	KBU6J	KBU6K	KBU6M	Units
Maximum Recurrent 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 Current 0.375"(9.5mm) Lead Length at T_a = 65 °C	$I_{F(AV)}$	6							A
Peak Forward Surge Current 8.3 ms Single Half-sine -wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	200							A
Maximum Forward Voltage at 6 A	V_F	1							V
Maximum Reverse Current T_a = 25 °C at Rated DC Blocking Voltage T_a = 100 °C	I_R	10 500							μA
Typical Thermal Resistance [1]	$R_{\theta JA}$	8.6							°C/W
Typical Thermal Resistance [1]	$R_{\theta JL}$	3.1							°C/W
Operating and Storage Temperature Range	T_j ,T_{stg}	- 55 to + 125							°C

[1] Thermal resistance from junction to ambient with units in free air, mounted on P.C.B with 0.5 X 0.5" (12 X 12 mm) copper pads, 0.375"(9.5mm) Lead Length.

FIG.1- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

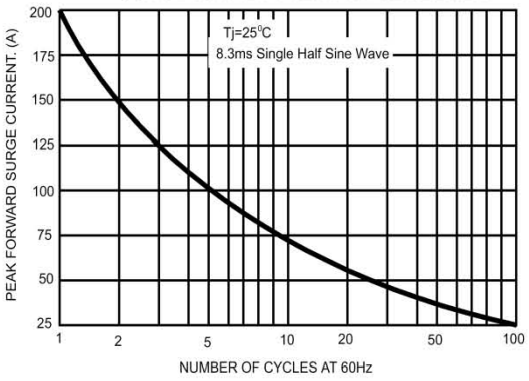


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

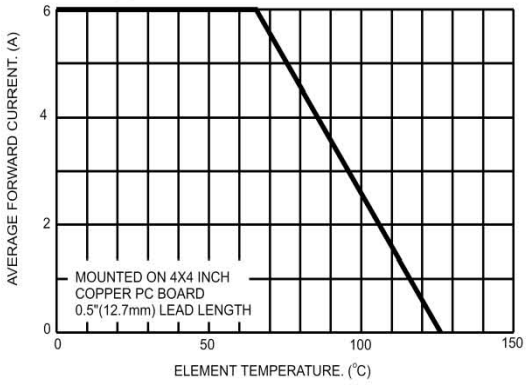


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

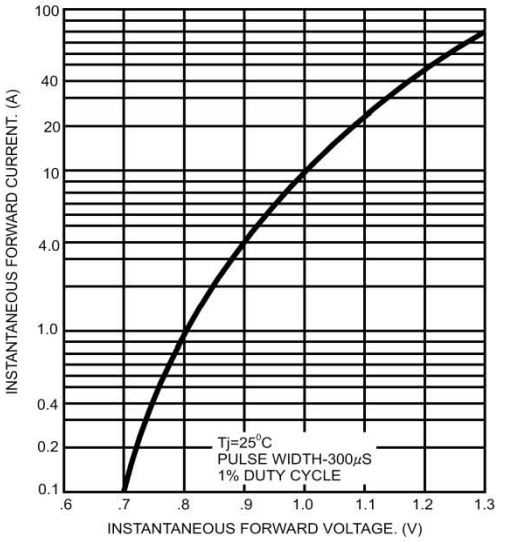


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT