

KBU100X SERIES

SINGLE-PHASE SILICON BRIDGE RECTIFIER

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KBU10005 THRU KBU1010

SINGLE-PHASE SILICON BRIDGE RECTIFIER



REVERSE VOLTAGE: 50 to 1000 VOLTS
FORWARD CURRENT: 10.0 AMPERE

FEATURES

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

MECHANICAL DATA

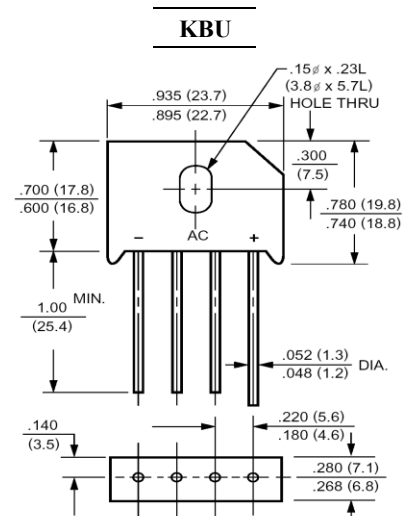
Case: Molded plastic, KBU

Epoxy: UL 94V-O rate flame retardant

Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed

Mounting position: Any

Weight: 0.3ounce, 8.0gram



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	KBU10005	KBU1001	KBU1002	KBU1004	KBU1006	KBU1008	KBU1010	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current .375" (9.5mm) Lead Length at $T_A=55$	$I_{(AV)}$	10.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	300							Amp
Maximum Forward Voltage at 10.0A DC and 25	V_F	1.1							Volts
Maximum Reverse Current at $T_A=25$ at Rated DC Blocking Voltage $T_A=100$	I_R	10.0 500							uAmp
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	18							/W
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	3							/W
Operating and Storage Temperature Range	T_J, T_{stg}	-55 to +125							

NOTES:

1- 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

2- Units mounted on a 3.0 x 3.0" x 0.11" thick (7.5 x 7.5 x 0.3cm) Al. Plate heatsink

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RATINGS AND CHARACTERISTIC CURVES

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

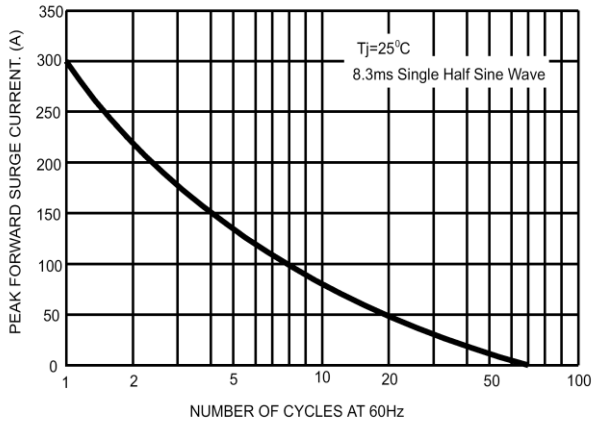


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

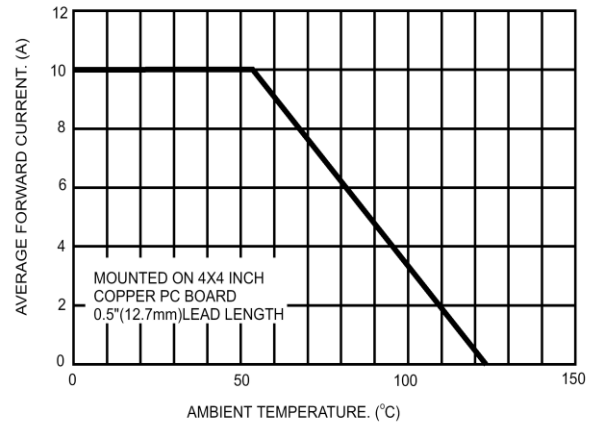


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

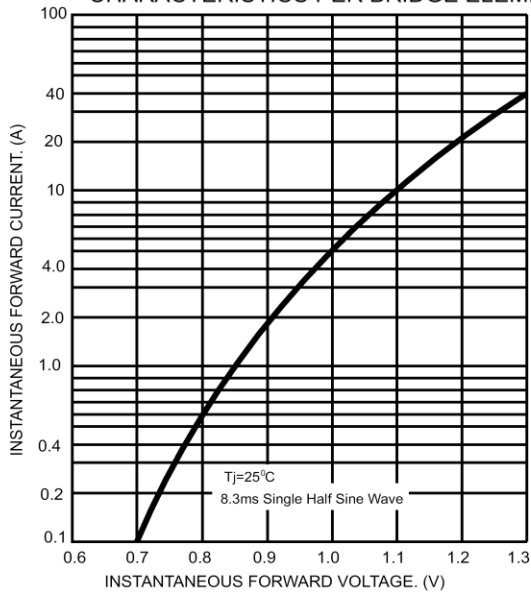


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

