

# KBU15005 THRU KBU1510



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HORNBY ELECTRONIC

## SINGLE-PHASE SILICON BRIDGE RECTIFIER

**REVERSE VOLTAGE:** 50 to 1000 VOLTS

**FORWARD CURRENT:** 15.0 AMPERE

### FEATURES

- High surge current capability
- Ideal for printed circuit board
- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- Reliable low cost construction utilizing molded plastic technique

### MECHANICAL DATA

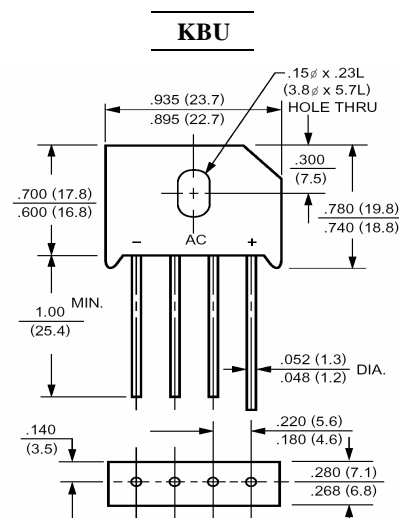
Case: Molded plastic, KBU

Epoxy: UL 94V-0 rate flame retardant

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

Mounting position: Any

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	KBU15005	KBU1501	KBU1502	KBU1504	KBU1506	KBU1508	KBU1510	Units
Maximum Recerrent 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 $T_A=55^{\circ}C$	$I_{(AV)}$	15.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	300.0							Amp
Maximum Forward Voltage at 15A DC and 25°C	$V_F$	1.1							Volts
Maximum Reverse Current at $T_A=25^{\circ}C$ at Rated DC Blocking Voltage $T_A=100^{\circ}C$	$I_R$	10.0 500							uAmp
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	18.0							°C/W
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	3.0							°C/W
Operating and Storage Temperature Range	$T_J, T_{stg}$	-55 to +125							°C

### 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

# KBU10005 THRU KBU1010

## SINGLE-PHASE SILICON BRIDGE RECTIFIER



### RATINGS AND CHARACTERISTIC CURVES

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

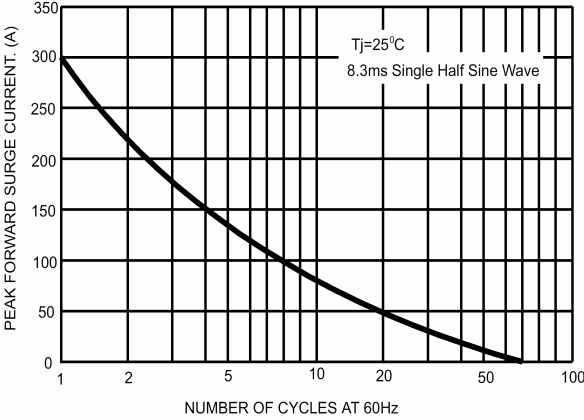


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

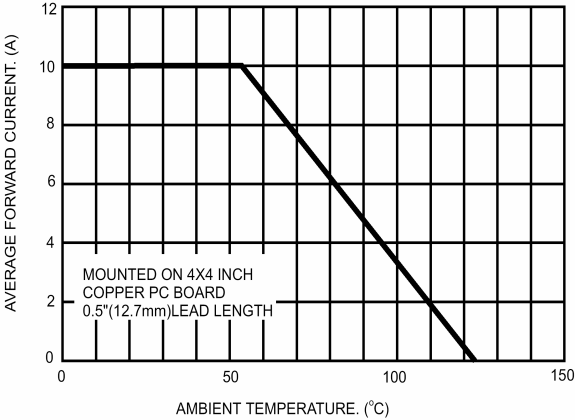


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

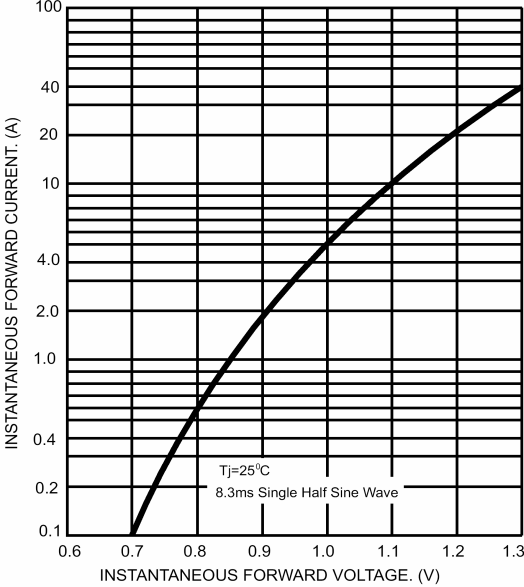


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

