

# RS605

## SINGLE-PHASE SILICON BRIDGE RECTIFIER

**REVERSE VOLTAGE:** 600 VOLTS  
**FORWARD CURRENT:** 6.0 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

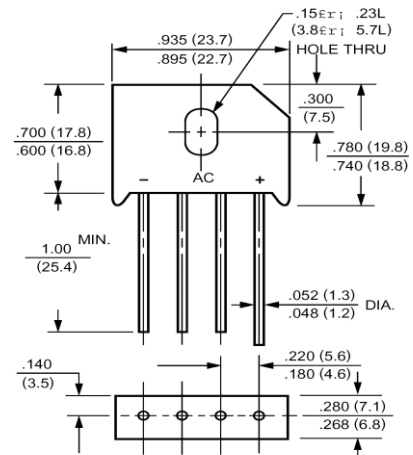
Case: Molded plastic, KBU

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				KBU606				Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$				600				Volts
Maximum RMS Voltage	$V_{RMS}$				420				Volts
Maximum DC Blocking Voltage	$V_{DC}$				600				Volts
Maximum Average Forward Rectified Current .375" (9.5mm) Lead Length at $T_A=65$	$I_{(AV)}$				6.0				Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$				200				Amp
Maximum Forward Voltage at 6.0A DC and 25	$V_F$				1.0				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)	$R_{\theta JA}$				8.6				/W
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$				3.1				/W
Operating and Storage Temperature Range	$T_J, T_{stg}$				-55 to +125				

### NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal resistance from junction to ambient with units in free air, P.C.B. mounted on 0.5 x 0.5" (12 x 12mm) copper pads, 0.375" (9.5mm) lead length

# KBU6005 THRU KBU610

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### RATINGS AND CHARACTERISTIC CURVES

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

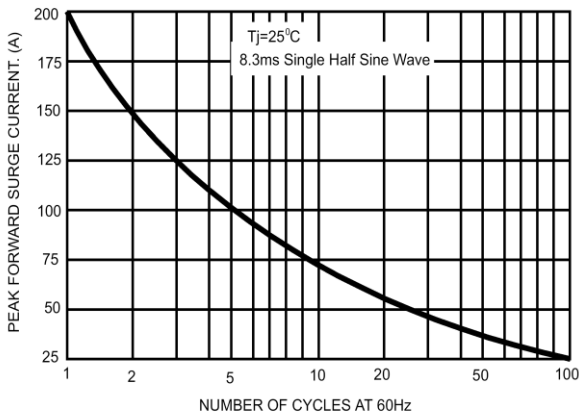


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

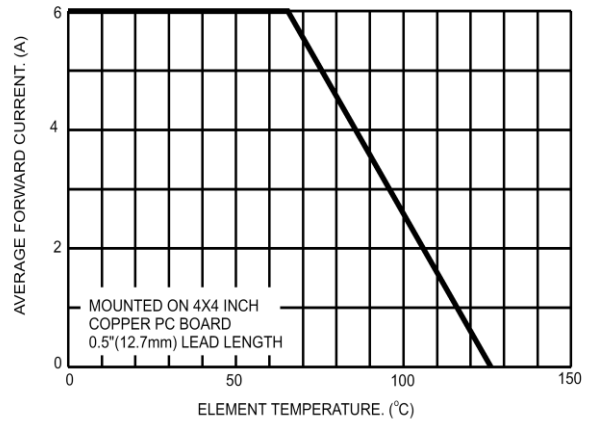


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

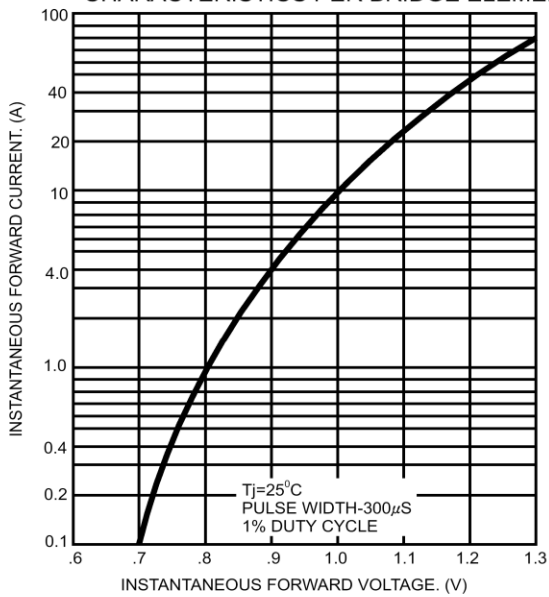


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

