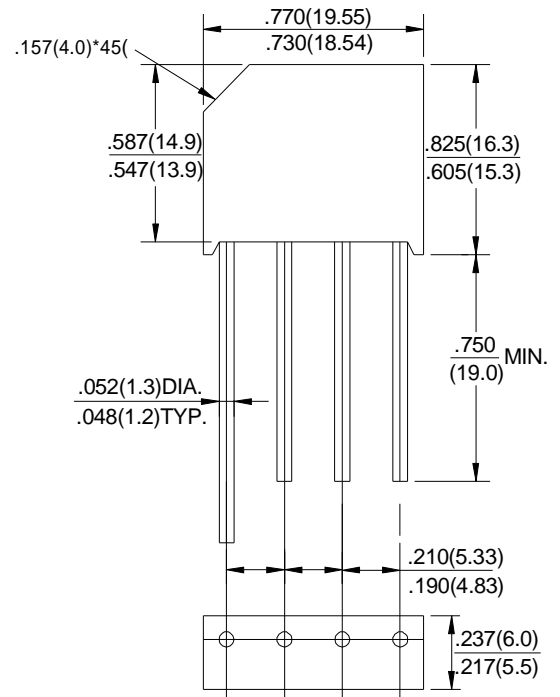


# KBL6005-KBL610 Silicon Bridge Rectifiers



**VOLTAGE RANGE: 50 -- 1000 V**

**CURRENT: 6.0 A**



Dimensions in inches and (millimeters)

## Features

- ◇ Rating to 1000V PRV
- ◇ Surge overload rating to 150 Amperes peak
- ◇ Ideal for printed circuit board
- ◇ Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- ◇ Lead solderable per MIL-STD-202 method 208

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		KBL6005	KBL601	KBL602	KBL604	KBL606	KBL608	KBL610	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 output current @ $T_A=25^\circ\text{C}$	$I_{F(AV)}$	6.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	150							A
$I^2t$ Rating for fusing @ $T_j=25^\circ\text{C}$	$I^2t$	66							A <sup>2</sup> S
Typical Junction Capacitance	$C_J$	400							pF
Maximum instantaneous forward voltage @ 3.0 A	$V_F$	1.1							V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	$I_R$	10.0 1.0							$\mu\text{A}$ mA
Typical thermal resistance per leg	$R_{\theta JA}$	13							°C/W
	$R_{\theta JC}$	7.5							
Operating junction temperature range	$T_J$	- 55 ---- + 150							°C
Storage temperature range	$T_{STG}$	- 55 ---- + 150							°C

# KBL6005-KBL610 Silicon Bridge Rectifiers



## Ratings AND Characteristic Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

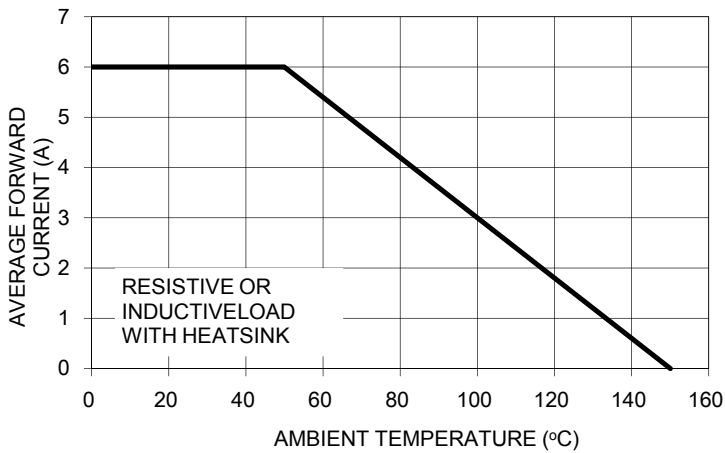


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

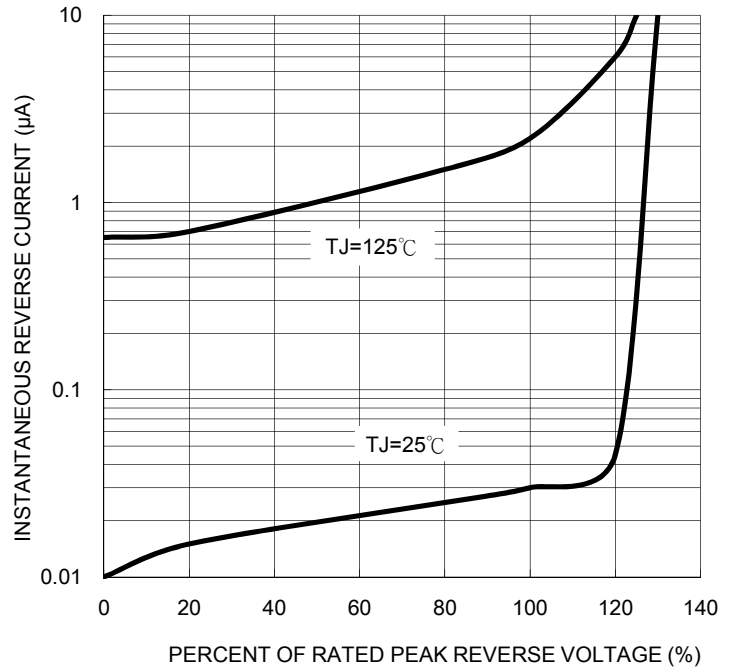


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

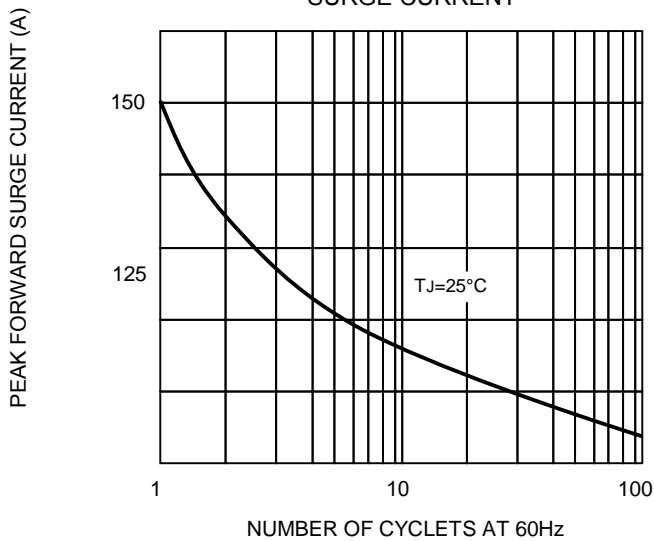
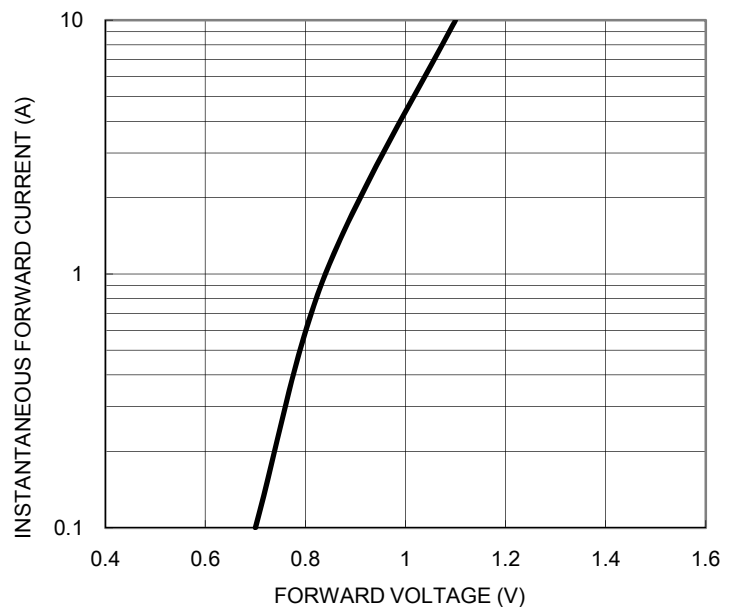


FIG. 4 TYPICAL FORWARD CHARACTERISTICS



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