



KBL6005-KBL610

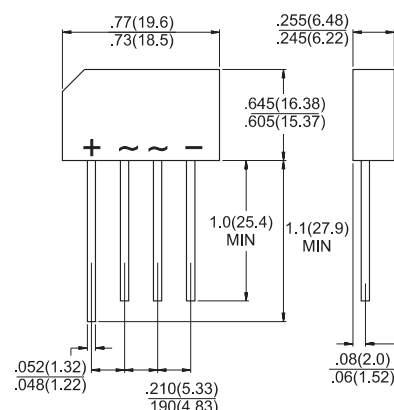
Single Phase Silicon Bridge

VOLTAGE RANGE: 50 --- 1000V

CURRENT: 6.0A

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High surge current capability
- Ideal for printed circuit boards



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

Type Number	SYMBOL	KBL6005	KBL601	KBL602	KBL604	KBL606	KBL608	KBL610	UNIT
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 T _A =50°C	I _(AV)	6.0							A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	240							A
Maximum Instantaneous Forward Voltage @ 6.0 A	V _F	1.1							V
Maximum DC Reverse Current @T _J =25°C At Rated DC Blocking Voltage @T _J =125°C	I _R	10.0 0.5							uA mA
Rating for fusing (t < 8.3ms)	I ² t	19							A ² S
Typical junction Capacitance (Note 1)	C _J	28							pF
Typical Thermal Resistance per leg Typical Thermal Resistance (Note 2)	R _{θJA} R _{θJL}	19 2.4							°C/W
Operating Junctionand Storage Temperature Range	T _J , T _{STG}	-55 to + 165							°C

NOTES : (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.

(2) Thermal Resistance form junction to ambient mounted on P.C.B with 0.5 x 0.5"(13x13mm) copper pads.

Ratings AND Characteristic Curves

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FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

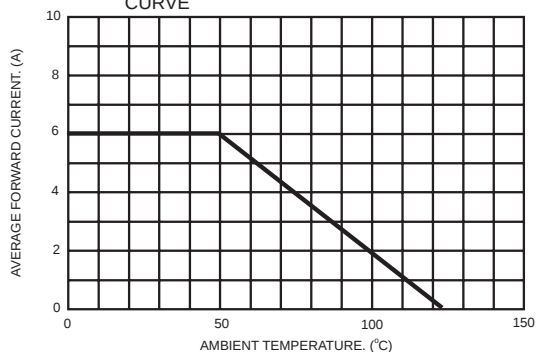


FIG.2- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

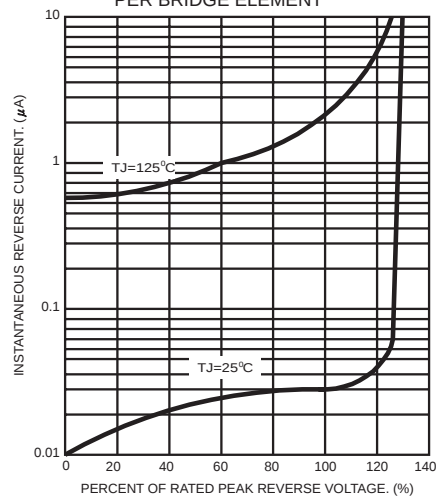


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

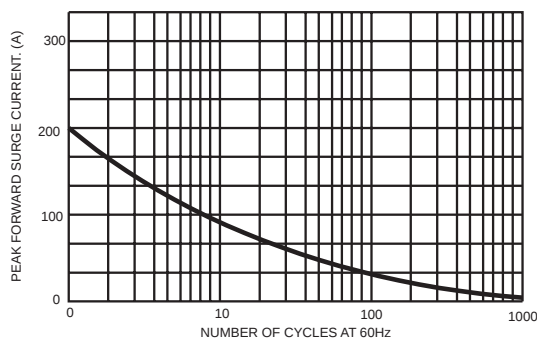


FIG.4- TYPICAL JUNCTION CAPACITANCE

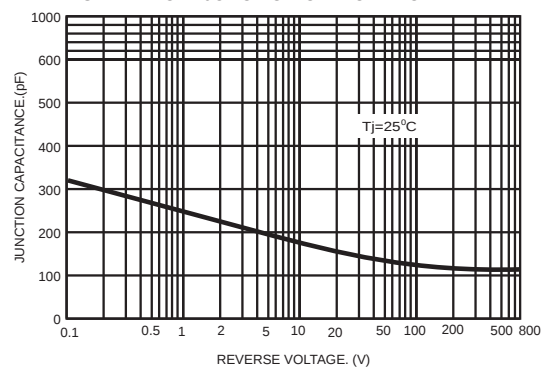


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

