



KBL6005 THRU KBL607

SINGLE PHASE SILICON BRIDGE RECTIFIER

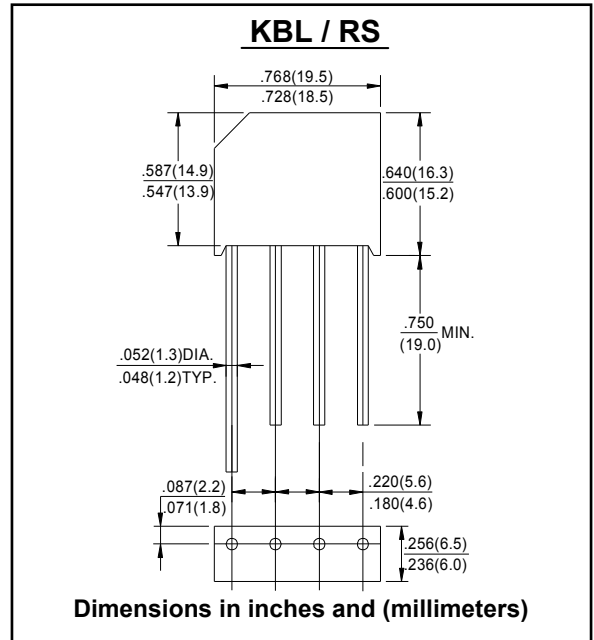
Reverse Voltage - 50 to 1000 Volts Forward Current - 6.0 Ampere

FEATURES

- Ideal for printed circuit board
- Surge overload rating: 150A peak
- High case dielectric strength
- High temperature soldering guaranteed:
260°C/10 seconds at 5lbs. (2.3kg) tension

MECHANICAL DATA

- Case: UL-94 Class V-0 recognized Flame Retardant Epoxy
- Terminals: Plated leads solderable per
MIL-STD 202, method 208
- Mounting Position: Any
- Marking: Type Number



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 current derate by 20%.

Characteristic	Symbol	KBL 6005	KBL 601	KBL 602	KBL 604	KBL 605	KBL 606	KBL 607	Unit
Peak Repetitive Reverse Voltage	V_{RRM}								V
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	800	1000	V
DC Blocking Voltage	V_R								V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current @ $T_C = 50^\circ C$	I_o	6.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150							A
Forward Voltage (per element) @ $I_F = 3.0A$	V_{FM}	1.1							V
Peak Reverse Current @ $T_C = 25^\circ C$ At Rated DC Blocking Voltage @ $T_C = 100^\circ C$	I_R	10 1.0							μA mA
Rating for Fusing ($t < 8.3ms$) (Note 1)	I^2t	166							A^2s
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	2.4							$^\circ C/W$
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150							$^\circ C$

Note: 1. Non-repetitive for $t > 1ms$ and $< 8.3ms$.
2. Thermal resistance junction to case per element mounted on PC board with 13.0x13.0x0.03mm thick land areas.

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FIG.1-MAXIMUM FORWARD SURGE CURRENT

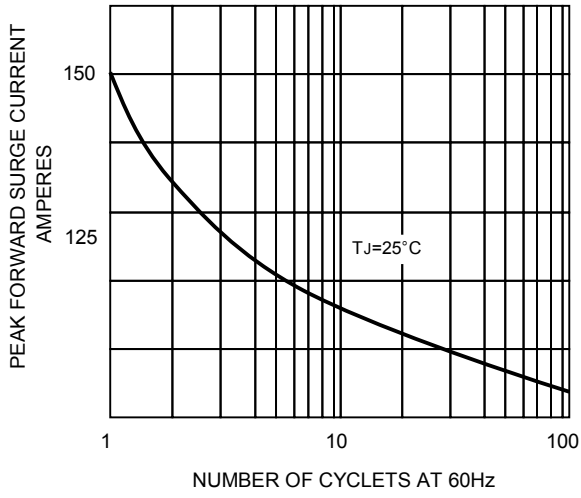


FIG.1-DERATING CURVE
OUTPUT RECTIFIED CURRENT

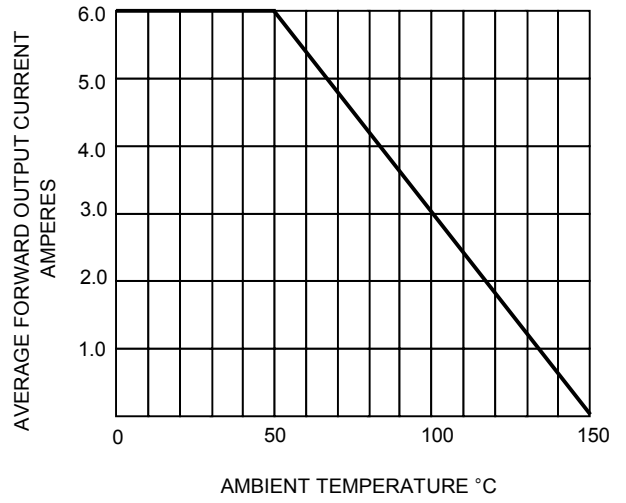


FIG.4-TYPICAL FORWARD CHARACTERISTICS

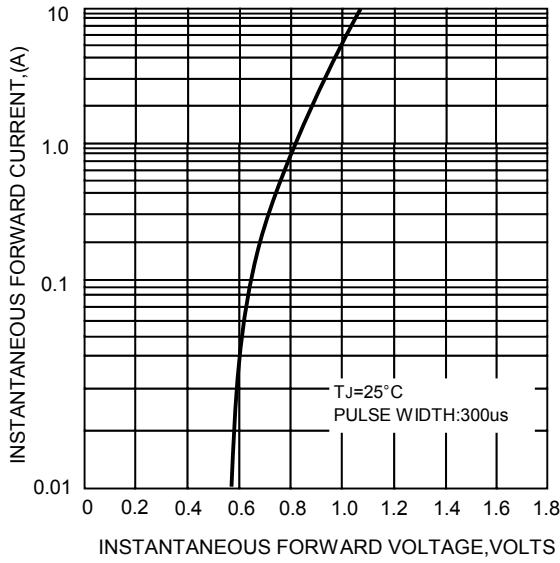


FIG.4- TYPICAL REVERSE CHARACTERISTICS

