



KBL4005 THRU KBL407

SINGLE PHASE SILICON BRIDGE RECTIFIER

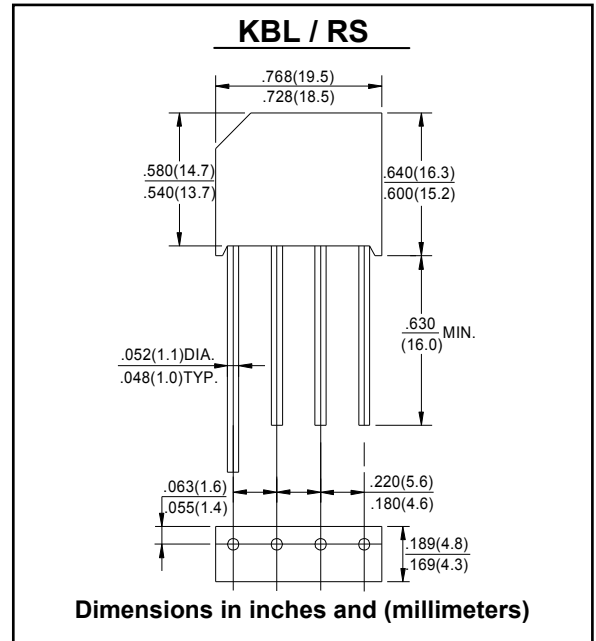
Reverse Voltage - 50 to 1000 Volts Forward Current - 4.0 Ampere

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
- Glass passivated chip junction

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 4005	KBL 401	KBL 402	KBL 404	KBL 405	KBL 406	KBL 407	Unit	
Peak Repetitive Reverse Voltage	V _{RRM}									
Working Peak Reverse Voltage	V _{RWM}	50	100	200	400	600	800	1000	V	
DC Blocking Voltage	V _R									
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	V	
Average Rectified Output Current @T _C = 75°C	I _O	4.0								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 = 2.0A	V _{FM}	1.1								V
Peak Reverse Current @T _C = 25°C	I _R	10								µA
At Rated DC Blocking Voltage @T _C = 100°C		1.0								mA
Rating for Fusing (t < 8.3ms) (Note 1)	I ² t	166								A ² s
Typical Thermal Resistance (Note 2)	R _{θJC}	19								K/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150								°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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RATINGS AND CHARACTERISTIC CURVES

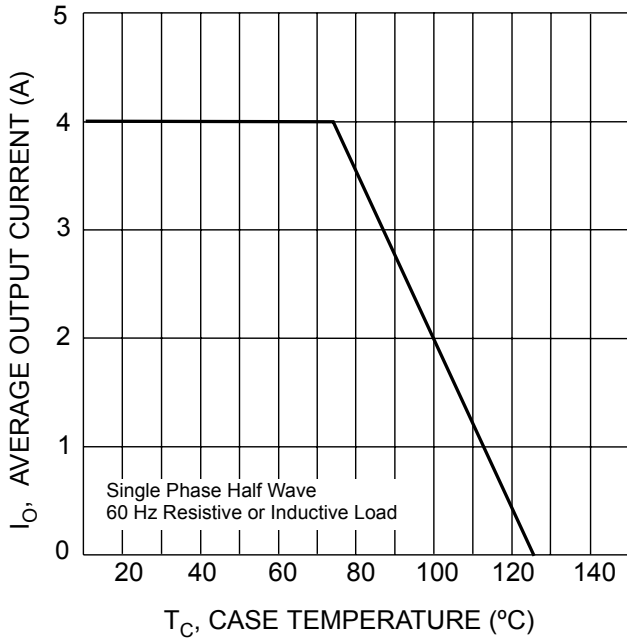


Fig. 1 Forward Current Derating Curve

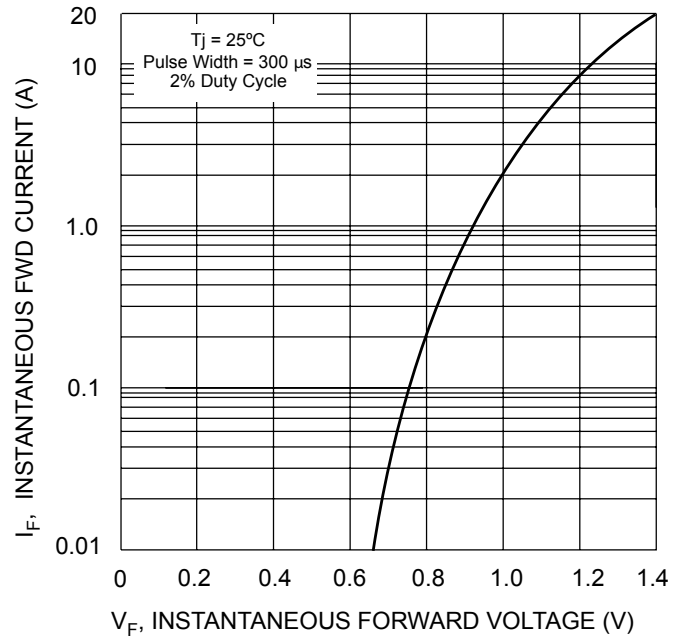


Fig. 2 Typical Forward Characteristics, per element

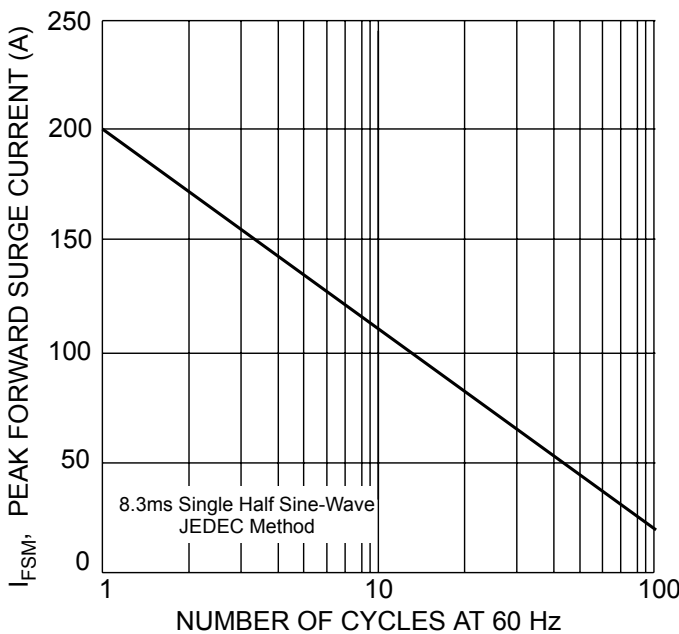


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

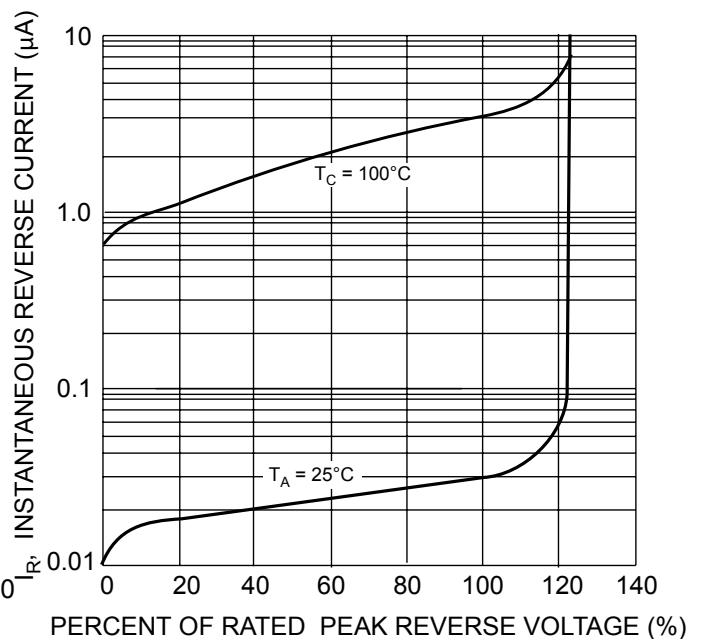


Fig. 4 Typical Reverse Characteristics, per element