



DATA SHEET

SEMICONDUCTOR

KBL005 THRU KBL10

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER



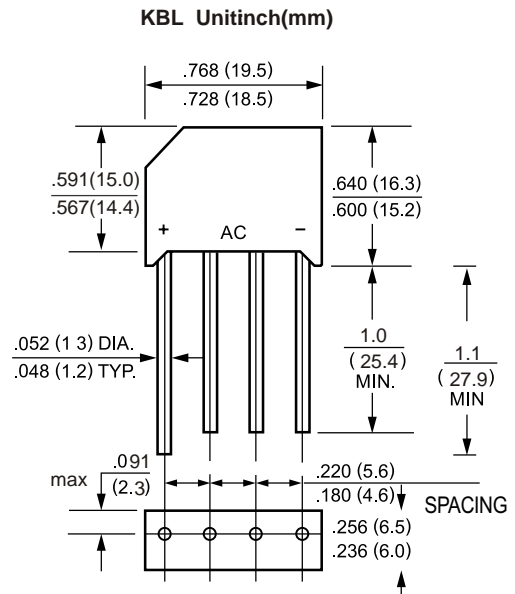
VOLTAGE RANGE-50 to 1000 Volts CURRENT-4.0 Amperes

FEATURES

- Ideal for printed circuit board
- Surge overload rating: 200 Amperes peak
- Molded structure
- This series is UL recognized under component index, file number E315292
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: MIL-STD-202E, Method 208 guaranteed
- Polarity: Symbols molded or marked on body
- Mounting position: Any
- Weight: 4.8 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25 ambient temperature unless otherwise specified.
- Single phase, half wave, 60 Hz, resistive or inductive load.
- For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	KBL005	KBL01	KBL02	KBL04	KBL06	KBL08	KBL10	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output TA = 50	IO	4.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	150							A
Maximum Forward Voltage Drop per element at 4.0A DC	VF	1.0							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	@TA = 25	5							μAmp
	@TA = 100	500							
I2t Rating for Fusing(t<8.3ms)	I2t	93							A2Sec
Typical Junction Capacitance(Note1)	CJ	40							pF
Typical Junction Resistance(Note2)	R JA	19							/W
Operating Temperature Range	TJ	-55 to + 150							
Storage Temperature Range	TSTG	-55 to + 150							

NOTES: 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts

2. Thermal Resistance from Junction to Ambient with units mounted on 3.0x3.0x0.11"(7.5x7.5x0.3cm)AL plate.

DEVICE CHARACTERISTICS

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FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

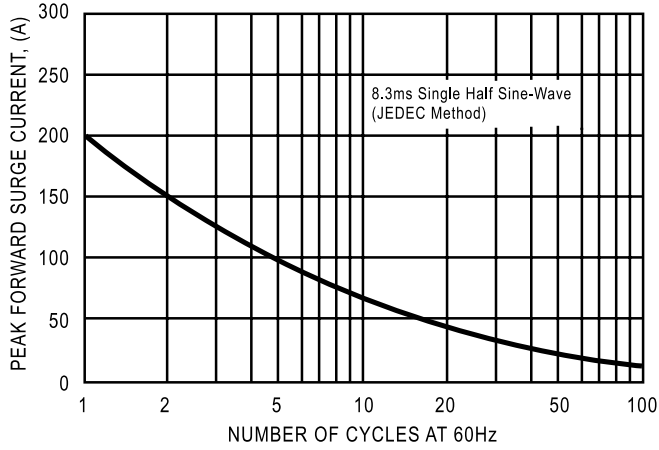


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

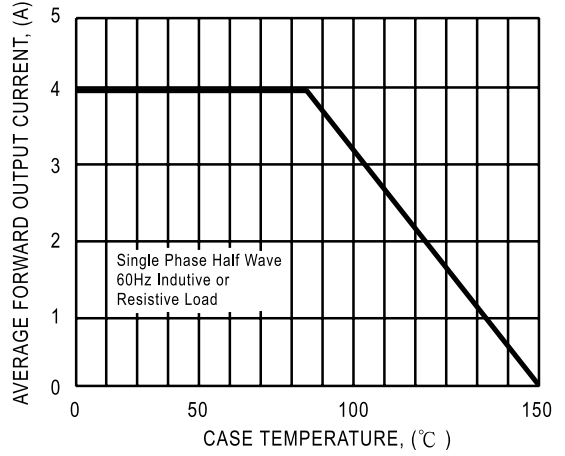


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

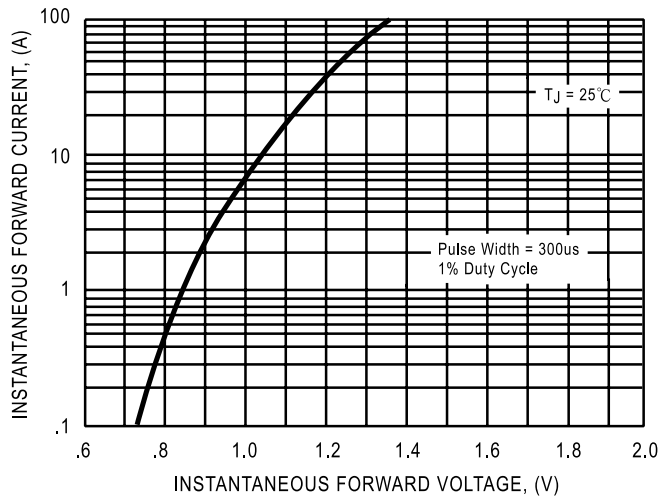


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

