

KBL4005 THRU KBL410

SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIERS

Reverse Voltage - 50 to 1000 V

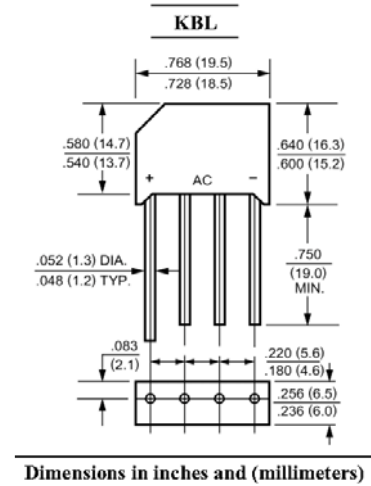
Forward Current - 4 A

Features

- Ideal for printed circuit board
- Low forward voltage drop
- Low reverse leakage current
- High surge current capability
- Surge overload rating: 200 Amperes peak

Mechanical Data

- Case: KBL
- Mounting Position: Any

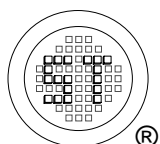


Maximum Ratings and Electrical Characteristics

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%.

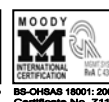
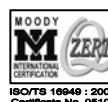
Parameter	Symbols	KBL4005	KBL401	KBL402	KBL404	KBL406	KBL408	KBL410	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Average Rectified Rectified Current at $T_A = 50\text{ }^\circ\text{C}$	$I_{F(AV)}$	4							A
Non-repetitive Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	200							A
Maximum Forward Voltage per Leg at 4 A DC	V_F	1.1							V
Maximum Reverse Current at Rated $T_A = 25\text{ }^\circ\text{C}$ DC Blocking Voltage per Leg $T_A = 100\text{ }^\circ\text{C}$	I_R	10 1							μA mA
Typical Junction Capacitance ¹⁾	C_j	40							pF
Operating Junction Temperature Range	T_j	- 55 to + 125							$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150							$^\circ\text{C}$

¹⁾ Measured at 1 MHz and applied reverse voltage of 4 V DC



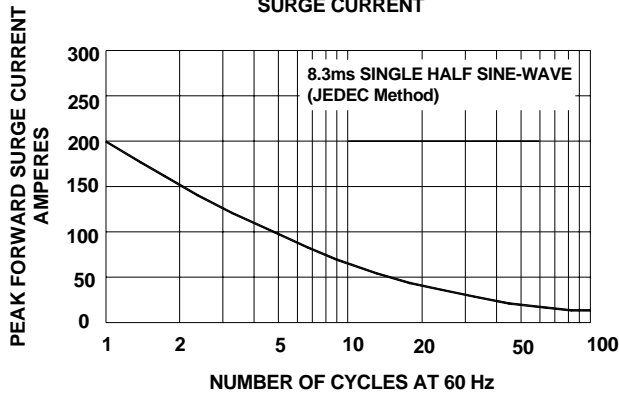
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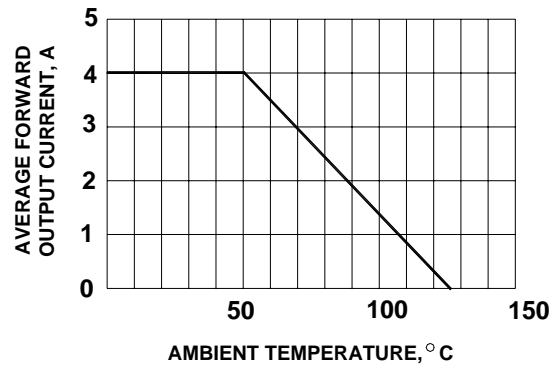


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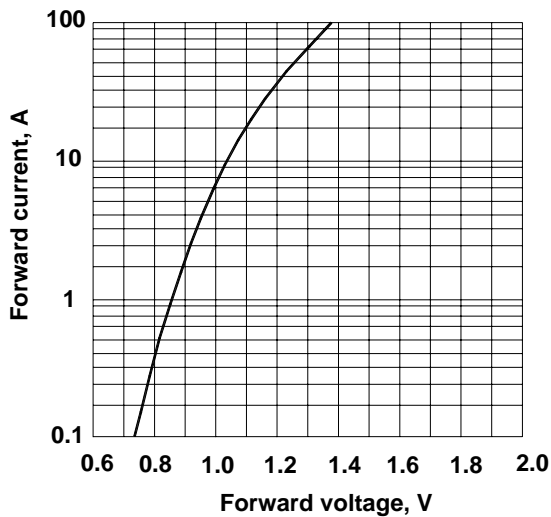
Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



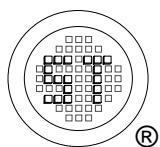
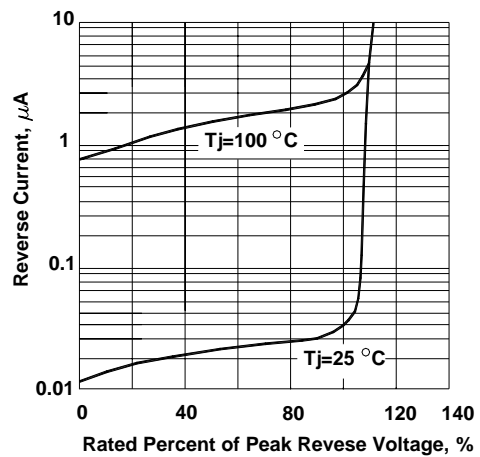
TYPICAL FORWARD CURRENT DERATING CURVE



Typical Forward Characteristics

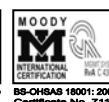
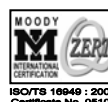


Typical Reverse Characteristics



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ISO/TS 16949:2002
Certificate No. 05103

ISO 14001:2004
Certificate No. 7116

ISO 9001:2000
Certificate No. 0506006

BS-CHAS 18001:2007
Certificate No. 7116

IECQ QC 080000
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