

# KBL005 THRU KBL10

## SINGLE-PHASE SILICON BRIDGE RECTIFIERS

Reverse Voltage - 50 to 1000 V

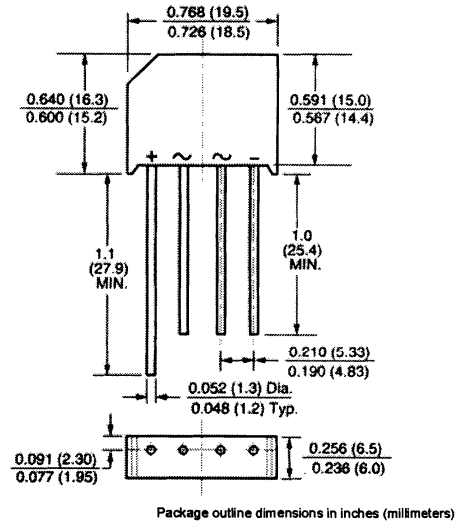
Forward Current - 4 A

### Features

- High surge current capability

### Mechanical Data

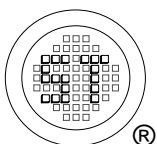
- Case: KBL
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Silver plated(E4 Suffix) leads, solderable per J-STD-002B and JESD22-B102D
- Polarity: As marked on body



### Absolute Maximum Ratings and Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	KBL005	KBL01	KBL02	KBL04	KBL06	KBL08	KBL10	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
Maximum Average Forward Rectified Current at $T_A = 50^\circ\text{C}$	$I_{F(AV)}$	4							A
Peak Forward Surge Current, 8.3 ms Single Half-Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	200							A
Maximum Forward Voltage Drop at 2 A	$V_F$	1.1							V
Maximum Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 125^\circ\text{C}$	$I_R$	5 1							$\mu\text{A}$ mA
Operating and Storage Temperature Range	$T_J, T_{stg}$	- 55 to + 150							$^\circ\text{C}$



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002  
Certificate No. 05103



ISO 14001:2004  
Certificate No. 7116



ISO 9001:2000  
Certificate No. 0506098

Dated : 20/08/2008 G

# KBL005 THRU KBL10

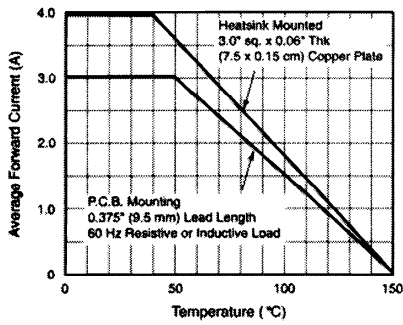


Figure 1. Derating Curve Output Rectified Current

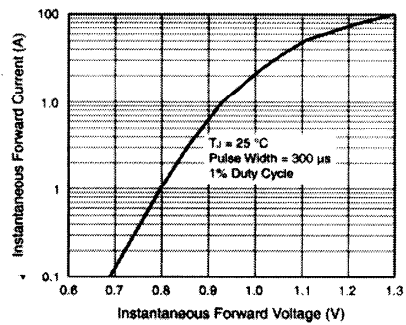


Figure 3. Typical Instantaneous Forward Characteristics Per Leg

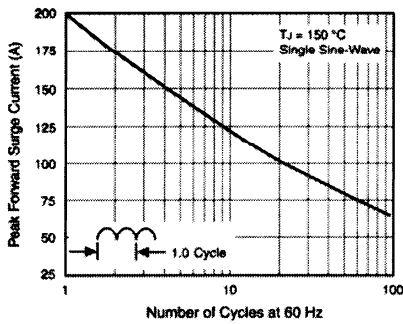


Figure 2. Maximum Non-Replicative Peak Forward Surge Current Per Leg

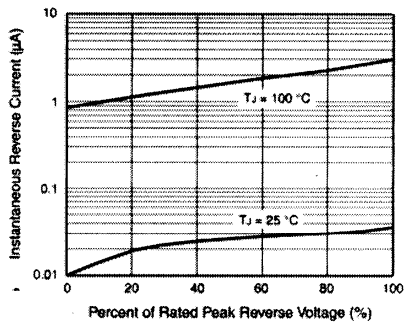


Figure 4. Typical Reverse Leakage Characteristics Per Leg

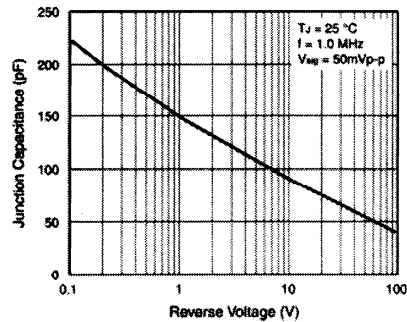
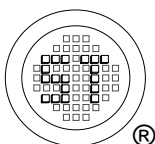


Figure 5. Typical Junction Capacitance Per Leg



## SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002  
Certificate No. 05103



ISO 14001:2004  
Certificate No. 71116



ISO 9001:2000  
Certificate No. 0506098