

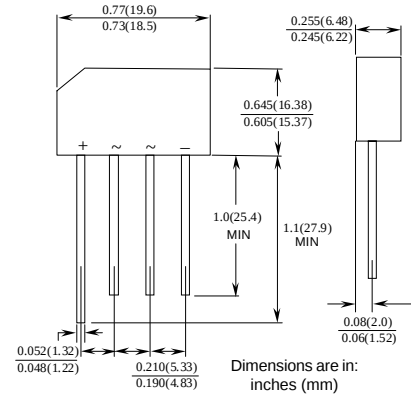
KBL005 - KBL10



KBL

Features

- Ideal for printed circuit board .
- Reliable low cost construction.
- High surge current capability.



4.0 Ampere Silicon Bridge Rectifiers

Absolute Maximum Ratings*

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
I_O	Average Rectified Current @ $T_A = 40^\circ\text{C}$	4.0	A
$I_{f(\text{surge})}$	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	200	A
P_D	Total Device Dissipation Derate above 25°C	6.58 53	W mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient,** per leg	19	$^\circ\text{C/W}$
$R_{\theta JL}$	Thermal Resistance, Junction to Lead,** per leg	2.4	$^\circ\text{C/W}$
T_{stg}	Storage Temperature Range	-55 to +150	$^\circ\text{C}$
T_J	Operating Junction Temperature	-55 to +150	$^\circ\text{C}$

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

**Device mounted on PCB with 0.375" (9.5 mm) lead length and 0.5 x 0.5" (13 x 13 mm) copper pads.

Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

Parameter	Device							Units
	005	01	02	04	06	08	10	
Peak Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
DC Reverse Voltage (Rated V_R)	50	100	200	400	600	800	1000	V
Maximum Reverse Leakage, total bridge @ rated V_R $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	5.0 500							μA μA
Maximum Forward Voltage Drop, per bridge @ 4.0 A	1.1							V

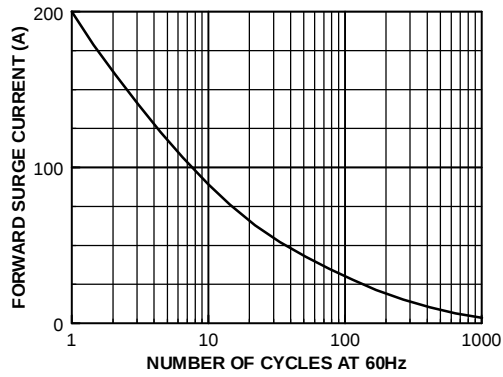
Silicon Bridge Rectifiers

(continued)

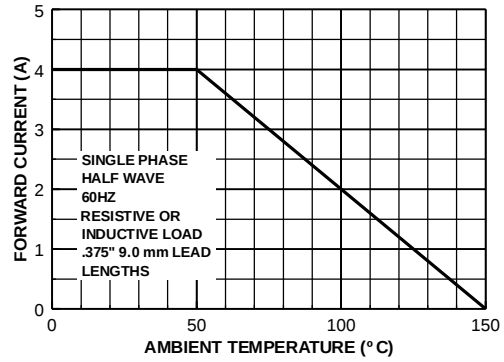
KBL005 - KBL10

Typical Characteristics

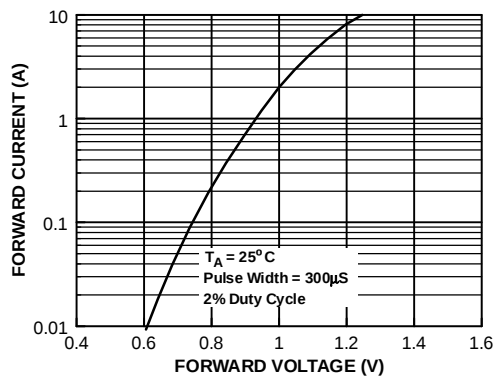
Non-Repetitive Surge Current



Forward Current Derating Curve



Forward Characteristics



Reverse Characteristics

