

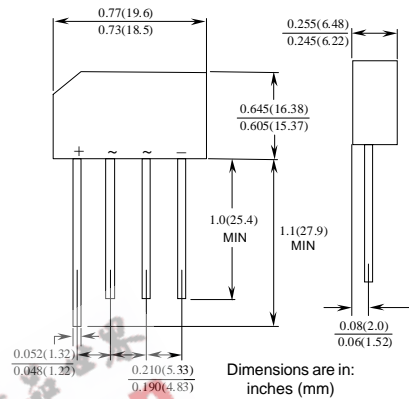
## KBL005 - KBL10

### Features

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



KBL



### 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 $25^\circ\text{C}$	6.58 53	W mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient,** per leg	19	$^\circ\text{C}/\text{W}$
$R_{\theta JL}$	Thermal Resistance, Junction to Lead,** per leg	2.4	$^\circ\text{C}/\text{W}$
$T_{\text{stg}}$	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.

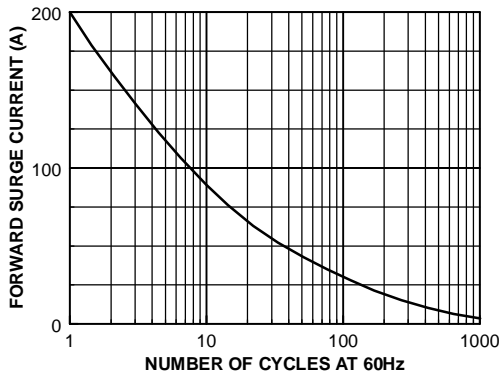
#### Electrical Characteristics

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

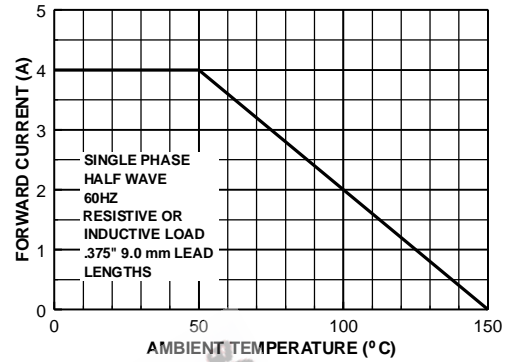
Parameter	Device							Units	
	005	01	02	04	06	08	10		
Peak Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V	
Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V	
DC Reverse Voltage (Rated $V_R$ )	50	100	200	400	600	800	1000	V	
Maximum Reverse Leakage, total bridge @ rated $V_R$	5.0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

Typical Characteristics

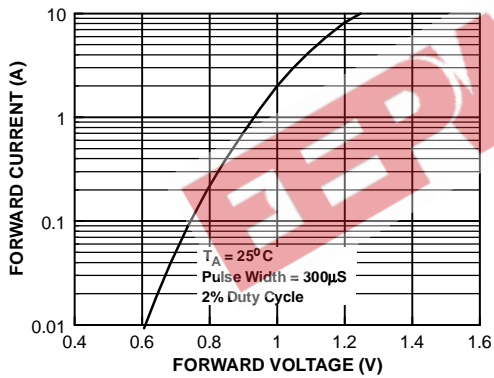
Non-Repetitive Surge Current



Forward Current Derating Curve



Forward Characteristics



Reverse Characteristics

