



## KBL005 - KBL10

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### Features

- Ideal for printed circuit board .
- Reliable low cost construction.
- High surge current capability.
- UL certified, UL #E96005.



### Bridge Rectifiers

#### Absolute Maximum Ratings\*

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

Symbol	Parameter	Value								Units
		005	01	02	04	06	08	10		
$V_{RRM}$	Maximum Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V	
$V_{RMS}$	Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V	
$V_R$	DC Reverse Voltage (Rated $V_R$ )	50	100	200	400	600	800	1000	V	
$I_{F(AV)}$	Average Rectified Forward Current, @ $T_A = 50^\circ\text{C}$	4.0								A
$I_{FSM}$	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	200								A
$T_{stg}$	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.

#### Thermal Characteristics

Symbol	Parameter	Value	Units
$P_D$	Power Dissipation	6.58	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient,* per leg	19	$^\circ\text{C/W}$
$R_{\theta JL}$	Thermal Resistance, Junction to Lead,* per leg	2.4	$^\circ\text{C/W}$

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

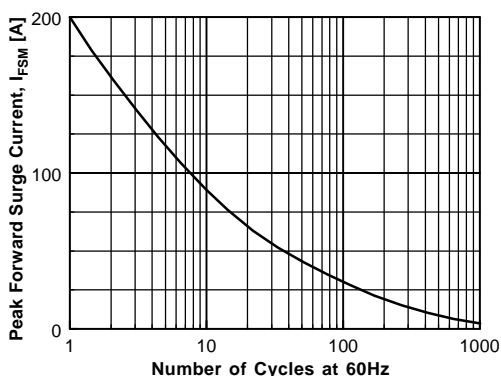
#### Electrical Characteristics

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

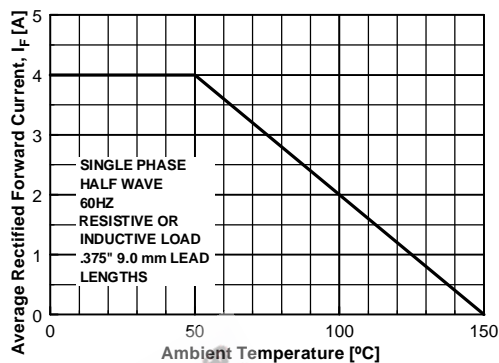
Symbol	Parameter	Device	Units	
$V_F$	Forward Voltage, per bridge @ 4.0 A	1.1	V	
$I_R$	Reverse Current, total bridge @ rated $V_R$			
		$T_A = 25^\circ\text{C}$	5.0	$\mu\text{A}$
		$T_A = 100^\circ\text{C}$	500	$\mu\text{A}$

**Bridge Rectifiers**  
(continued)

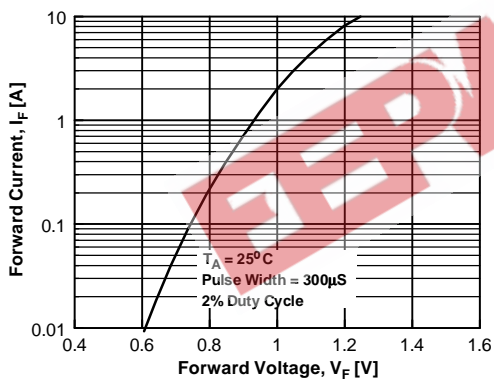
**Typical Characteristics**



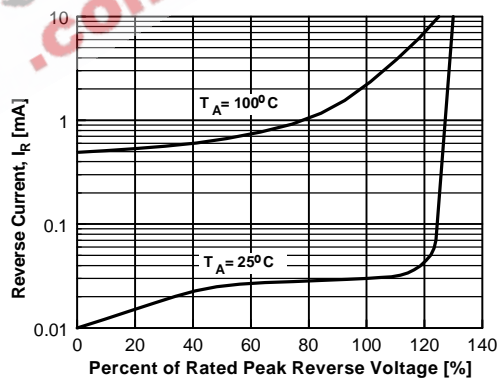
**Figure 1. Non-Repetitive Surge Current**



**Figure 2. Forward Current Derating Curve**



**Figure 3. Forward Voltage Characteristics**



**Figure 4. Reverse Current vs Reverse Voltage**

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