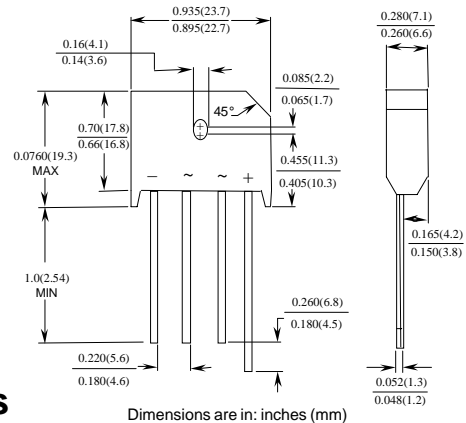


KBU6A - KBU6M



Features

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



6.0 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 @ $T_A = 65^\circ\text{C}$	6.0	A
$i_{f(\text{surge})}$	Peak Forward Surge Current	250	A
P_D	Total Device Dissipation Derate above 25°C	6.7 54	W mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient,** per leg	8.6	$^\circ\text{C}/\text{W}$
$R_{\theta JC}$	Thermal Resistance, Junction to Case,** per leg	4.0	$^\circ\text{C}/\text{W}$
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" (12 x 12 mm) copper pads.

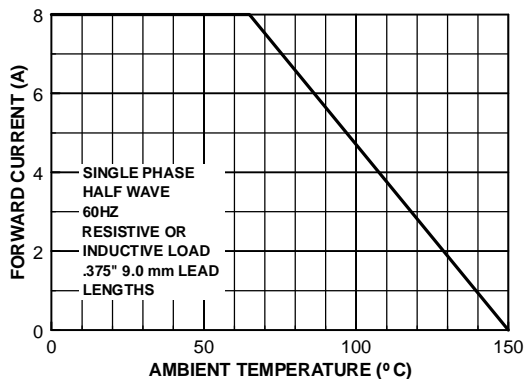
Electrical Characteristics

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

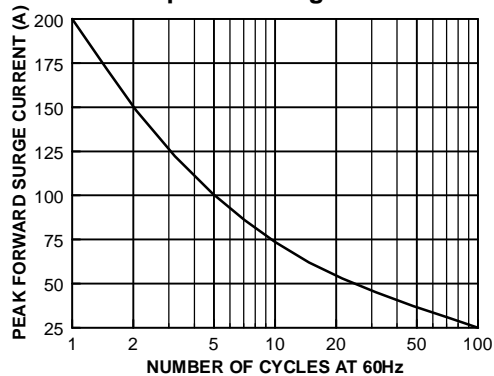
Parameter	Device							Units
	6A	6B	6D	6G	6J	6K	6M	
Peak Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
DC Reverse Voltage (Rated V_R)	50	100	200	400	600	800	1000	V
Maximum Reverse Leakage, total bridge @ rated V_R $T_A = 25^\circ\text{C}$	5.0							μA
$T_A = 100^\circ\text{C}$	500							μA
Maximum Forward Voltage Drop, per bridge @ 6.0 A	1.0							V

Typical Characteristics

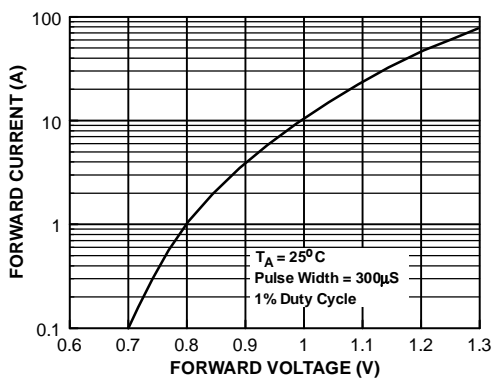
Forward Current Derating Curve



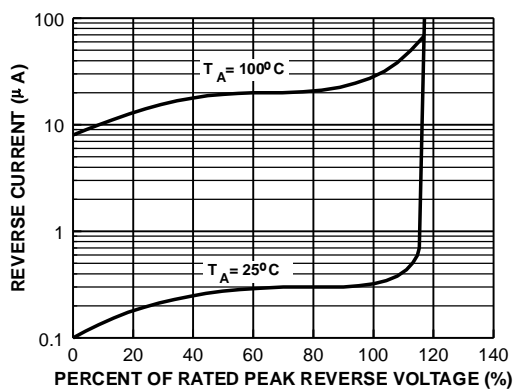
Non-Repetitive Surge Current



Forward Characteristics



Reverse Characteristics



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FACT Quiet Series™	Quiet Series™
FAST®	SuperSOT™-3
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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