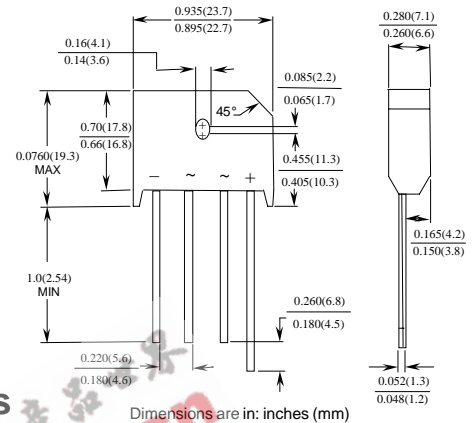


## KBU6A - KBU6M

### 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 $25^\circ\text{C}$	6.7 54	W mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient,** per leg	8.6	°C/W
$R_{\theta JC}$	Thermal Resistance, Junction to Case,** per leg	4.0	°C/W
$T_{stg}$	Storage Temperature Range	-55 to +150	°C
$T_J$	Operating Junction Temperature	-55 to +150	°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 $V_R$ $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	5.0 500							$\mu\text{A}$ $\mu\text{A}$
Maximum Forward Voltage Drop, per bridge @ 6.0 A	1.0							V

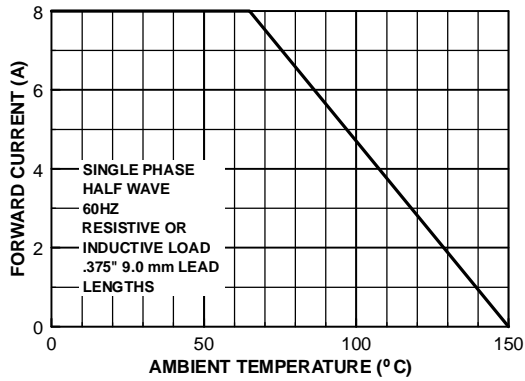
# Silicon Bridge Rectifiers

(continued)

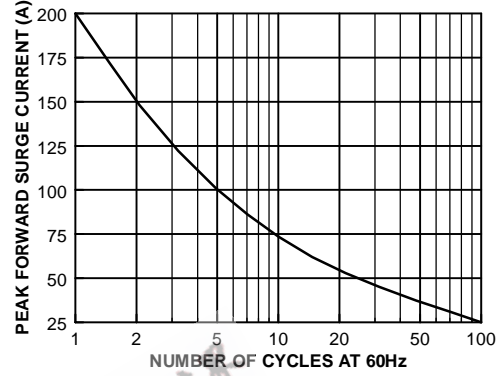
KBU6A - KBU6M

## Typical Characteristics

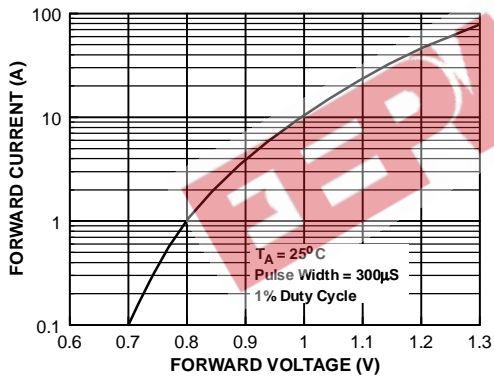
### Forward Current Derating Curve



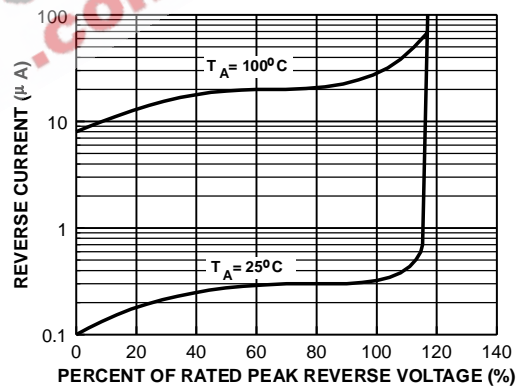
### Non-Repetitive Surge Current



### Forward Characteristics



### Reverse Characteristics



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E <sup>2</sup> CMOS™	PowerTrench™
FACT™	QS™
FACT Quiet Series™	Quiet Series™
FAST®	SuperSOT™-3
FAST <sub>r</sub> ™	SuperSOT™-6
GTO™	SuperSOT™-8
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