

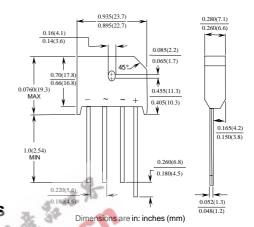
# Discrete POWER & Signal Technologies

### **KBU8A - KBU8M**

### **Features**

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





# 8.0 Ampere Silicon Bridge Rectifiers

### **Absolute Maximum Ratings\***

A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units	
I <sub>O</sub>	Average Rectified Current  @ T <sub>A</sub> = 50°C	8.0	А	
i <sub>f(surge)</sub>	Peak Forward Surge Current	300	A	
P <sub>D</sub>	Total Device Dissipation Derate above 25°C	6.9 55	W mW/°C	
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient,** per leg	18	°C/W	
$R_{\theta JL}$	Thermal Resistance, Junction to Lead,** per leg	3.0	°C/W	
T <sub>stg</sub>	Storage Temperature Range	-55 to +150	°C	
TJ	Operating Junction Temperature	-55 to +150	°C	

<sup>\*</sup>These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Electrical Characteristics T<sub>A</sub> =

T<sub>A</sub> = 25°C unless otherwise noted

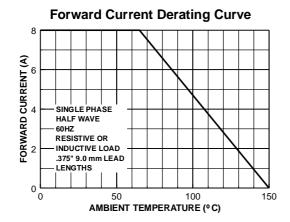
Parameter	Device						Units	
	8A	8B	8D	8G	8J	8K	8M	1
Peak Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
DC Reverse Voltage (Rated V <sub>R</sub> )	50	100	200	400	600	800	1000	V
Maximum Reverse Leakage, total bridge @ rated $V_R$ $T_A = 25^{\circ}C$ $T_A = 100^{\circ}C$				10 500				μΑ μΑ
Maximum Forward Voltage Drop, per bridge @ 8.0 A				1.0				V

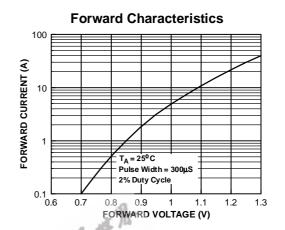
<sup>\*\*</sup>Device mounted on PCB with 0.375 " (9.5 mm) lead length and  $0.5 \times 0.5$ " (13 x 13 mm) copper pads.

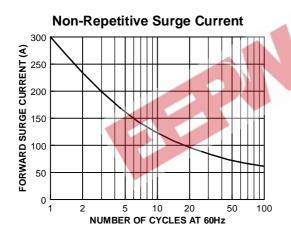
### Silicon Bridge Rectifiers

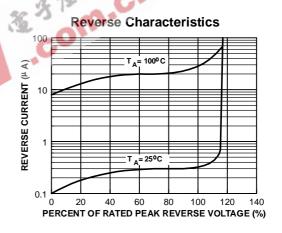
(continued)

# **Typical Characteristics**









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FACT<sup>TM</sup> QS<sup>TM</sup>

 $\begin{array}{lll} \text{FACT Quiet Series}^{\text{TM}} & \text{Quiet Series}^{\text{TM}} \\ \text{FAST}^{\tiny{\textcircled{\tiny{\$}}}} & \text{SuperSOT}^{\text{TM}}\text{-3} \\ \text{FASTr}^{\text{TM}} & \text{SuperSOT}^{\text{TM}}\text{-6} \\ \text{GTO}^{\text{TM}} & \text{SuperSOT}^{\text{TM}}\text{-8} \\ \text{HiSeC}^{\text{TM}} & \text{TinyLogic}^{\text{TM}} \end{array}$ 

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