June 2010



# KBU8A - KBU8M Bridge Rectifiers

### Features

- High surge current capability.
- Reliable construction technique.
- · Ideal for printed circuit board.
- UL Certificate # E326243.



# Absolute Maximum Ratings\* T<sub>A</sub>= 25°C unless otherwise noted

Symbol	Parameter	Value						Units	
		8A	8B	8D	8G	8J	8K	8M	Units
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage		100	200	400	600	800	1000	V
V <sub>RMS</sub>	Maximum RMS Bridge Input Voltage		70	140	280	420	560	700	V
V <sub>R</sub>	DC Reverse Voltage (Rated V <sub>R</sub> )		100	200	400	600	800	1000	V
I <sub>F(AV)</sub>	Average Rectified Forward Current, @ T <sub>A</sub> = 50°C		•	•	8.0			•	А
I <sub>FSM</sub>	Non-repetitive Peak Forward Surge Current 300			А					
T <sub>STG</sub>	Storage Temperature Range -55 to +150			°C					
Т <sub>Ј</sub>	Operating Junction Temperature -55 to +150				°C				

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

## **Thermal Characteristics**

Symbol	Parameter	Value	Units
PD	Power Dissipation	6.9	W
$R_{ ext{ heta}JA}$	Thermal Resistance, Junction to Ambient,* per leg	18	°C/W
R <sub>θJL</sub>	Thermal Resistance, Junction to Lead,* per leg	3.0	°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<sub>A</sub>= 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>F</sub>	Forward Voltage, per bridge @ 8.0 A	1.0	V
I <sub>R</sub>	Reverse Current, total bridge @ rated V <sub>R</sub> $T_A$ = 25°C $T_A$ = 100°C	10 500	μΑ μΑ

# **Typical Performance Characteristics**

### Figure 1. Forward Current Derating Curve

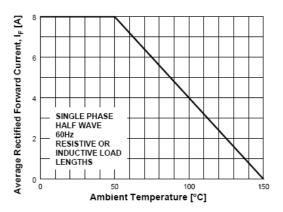


Figure 2. Forward Voltage Characteristics

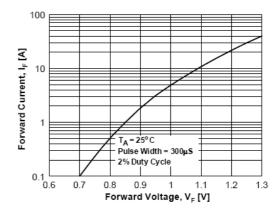


Figure 3. Non-Repetitive Surge Current

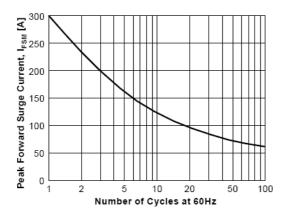
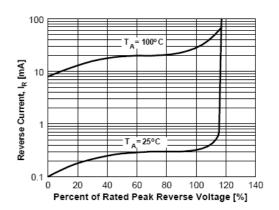


Figure 4. Reverse Current vs Reverse Voltage



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