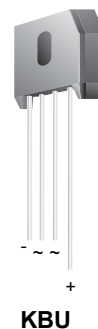


# KBU8A - KBU8M

## Bridge Rectifiers

### Features

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



### Absolute Maximum Ratings\* $T_A = 25^\circ\text{C}$ unless otherwise noted

| Symbol      | Parameter                                                     | Value       |     |     |     |     |     |      | Units            |
|-------------|---------------------------------------------------------------|-------------|-----|-----|-----|-----|-----|------|------------------|
|             |                                                               | 8A          | 8B  | 8D  | 8G  | 8J  | 8K  | 8M   |                  |
| $V_{RRM}$   | 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, @ $T_A = 50^\circ\text{C}$ | 8.0         |     |     |     |     |     |      | A                |
| $I_{FSM}$   | Non-repetitive Peak Forward Surge Current                     | 300         |     |     |     |     |     |      | 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                                  | 6.9   | W                         |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient, * per leg | 18    | $^\circ\text{C}/\text{W}$ |
| $R_{\theta JL}$ | Thermal Resistance, Junction to Lead, * per leg    | 3.0   | $^\circ\text{C}/\text{W}$ |

\* 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                                                                                            | Value     | Units                          |
|--------|------------------------------------------------------------------------------------------------------|-----------|--------------------------------|
| $V_F$  | Forward Voltage, per bridge @ 8.0 A                                                                  | 1.0       | V                              |
| $I_R$  | Reverse Current, total bridge @ rated $V_R$<br>$T_A = 25^\circ\text{C}$<br>$T_A = 100^\circ\text{C}$ | 10<br>500 | $\mu\text{A}$<br>$\mu\text{A}$ |

## Typical Performance Characteristics

Figure 1. Forward Current Derating Curve

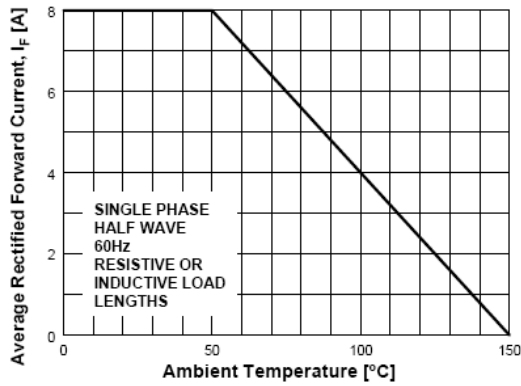


Figure 2. Forward Voltage Characteristics

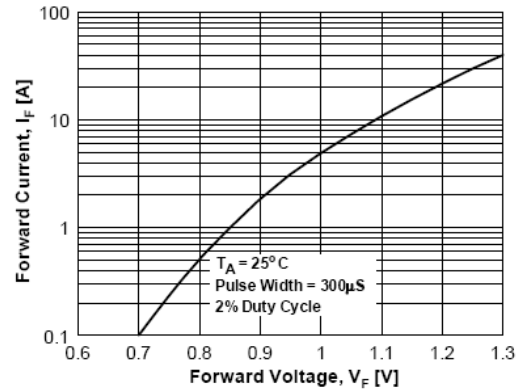


Figure 3. Non-Repetitive Surge Current

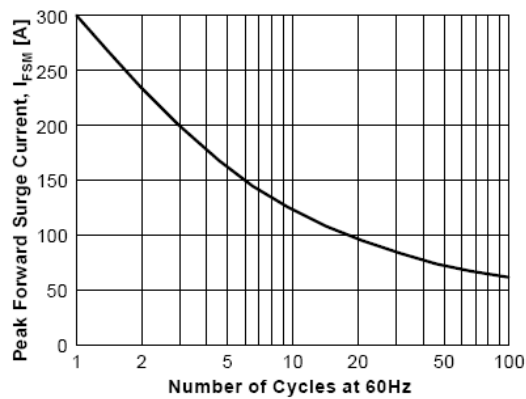
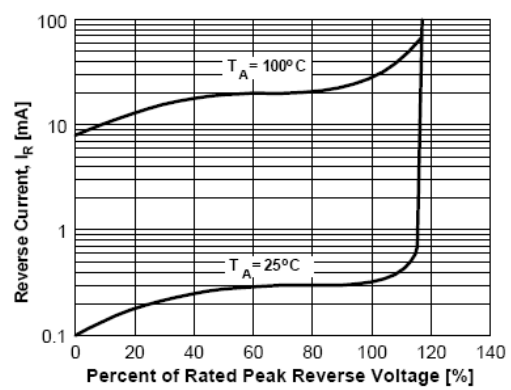


Figure 4. Reverse Current vs Reverse Voltage





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