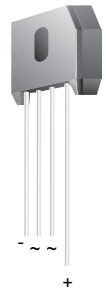
FAIRCHILD SEMICONDUCTOR®

June 2010

KBU8A - KBU8M
Bridge Rectifiers

Features

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



KBU

Absolute Maximum Ratings* T_A= 25°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°C	8.0							A
I_{FSM}	Non-repetitive Peak Forward Surge Current	300							A
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.

Thermal Characteristics

Symbol	Parameter	Value	Units
P_D	Power Dissipation	6.9	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient,* per leg	18	°C/W
$R_{\theta JL}$	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_A= 25°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		
	T_A= 25°C	10	μA
	T_A= 100°C	500	μA

Typical Performance Characteristics

Figure 1. Forward Current Derating Curve

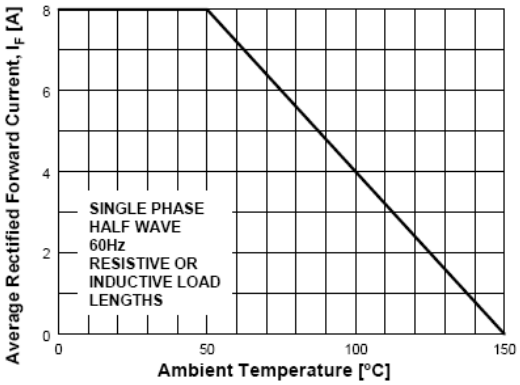


Figure 2. Forward Voltage Characteristics

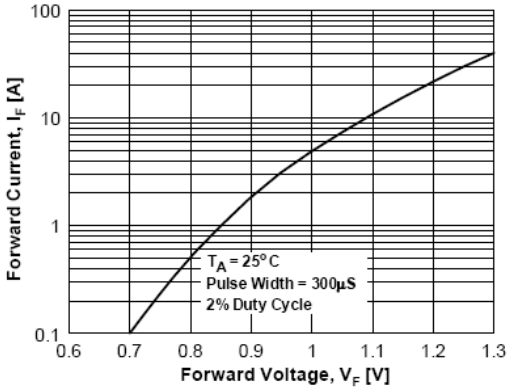


Figure 3. Non-Repetitive Surge Current

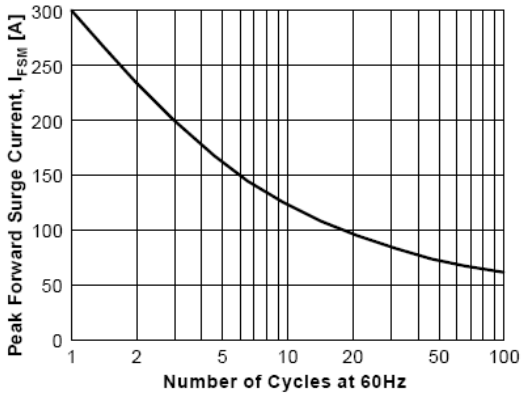
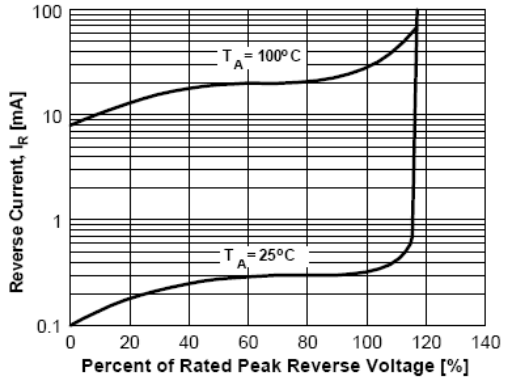


Figure 4. Reverse Current vs Reverse Voltage



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