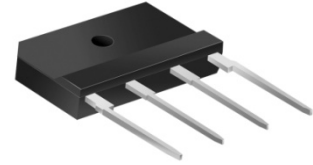


# SuperPlanar™ Bridge Rectifiers

## KBJ8J--KBJ8K

### Features

- Planar passivated chips
- Ultra low leakage reverse current
- High temperature performance
- High surge current capability
- Ideal for printed circuit boards
- High temperature soldering guaranteed:260°C/10 seconds
- RoHS Compliant



### Mechanical Data

- Case: KBJ molded plastic
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Leads solderable per MIL-STD-750,
- Mounting position: Any

### Maximum Ratings (@T<sub>A</sub> = 25°C unless otherwise specified)

Characteristic	Symbol	KBJ8J	KBJ8K	Units
Peak repetitive reverse voltage	V <sub>RRM</sub>	600	800	V
RMS reverse voltage	V <sub>RMS</sub>	420	560	V
DC blocking voltage	V <sub>DC</sub>	600	800	V
Maximum average forward output current	I <sub>F(AV)</sub>	8.0		A
Peak forward surge current, 8.3ms single half-sine-wave	@T <sub>J</sub> = 25°C I <sub>FSM</sub>	200		A
I <sup>2</sup> t Rating for fusing	@T <sub>J</sub> = 25°C I <sup>2</sup> t	166		A <sup>2</sup> s

### Thermal Characteristics

Parameter	Symbol	KBJ8J	KBJ8K	Units
Typical thermal resistance (Note 1,Note2)	R <sub>θJA</sub> (2)	26		°C / W
	R <sub>θJC</sub> (1)	4		
Operating junction temperature range	T <sub>J</sub>	- 55 ---- + 150		°C
Storage temperature range	T <sub>STG</sub>	- 55 ---- + 150		°C

Note:

(1) Unit case mounted on 65mm x 50mm x2.4mm aluminum plate heatsink

(2) Units mounted on PCB without heatsink

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### Electrical Characteristics (@T<sub>A</sub> = 25°C unless otherwise specified)

Parameter	Symbol	Test conditions		Typ.	Max.	Units
Maximum instantaneous forward voltage	V <sub>F</sub>	I <sub>F</sub> =4.0A Per Diode		0.91	0.95	V
		I <sub>F</sub> =8.0A Per Diode		0.94	1	
Maximum Reverse current	I <sub>R</sub>	Rated V <sub>R</sub> , Per Diode	@T <sub>A</sub> =25°C	0.2	1	μA
			@T <sub>A</sub> =150°C	40	100	

# SuperPlanar™ Bridge Rectifiers

## KBJ8J--KBJ8K

### Ratings and Characteristic Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1-Forward Current Derating Curve

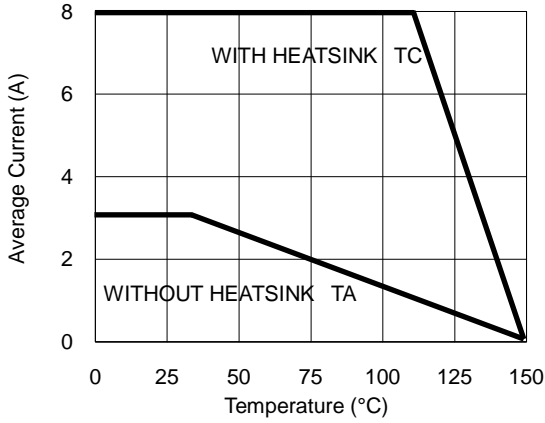


Fig.2- Surge Current Derating Curve

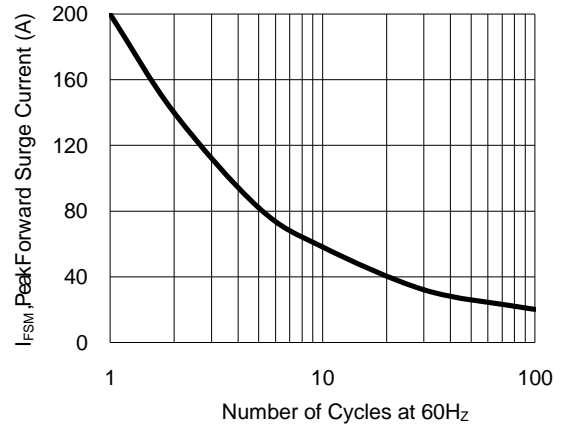


Fig.3- Typical Forward Voltage Characteristic

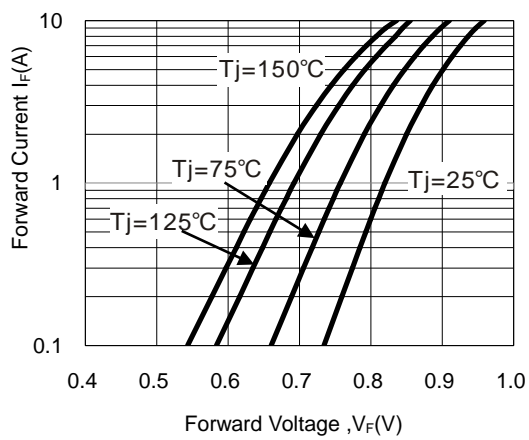


Fig.4- Typical Reverse Characteristic

