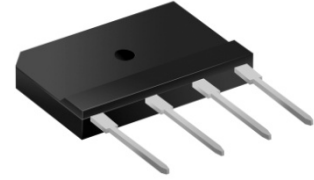


# SuperPlanar™ Bridge Rectifiers

## GBJ15J--GBJ15K

### 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: GBJ 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	GBJ15J	GBJ15K	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>	15		A
Peak forward surge current, 8.3ms single half-sine-wave	@T <sub>J</sub> = 25°C	I <sub>FSM</sub>	240		A
I <sup>2</sup> t Rating for fusing	@T <sub>J</sub> = 25°C	I <sup>2</sup> t	239		A <sup>2</sup> s

### Thermal Characteristics

Parameter	Symbol	GBJ15J	GBJ15K	Units
Typical thermal resistance (Note 1,Note2)	R <sub>θJA</sub> (2)	25.2		°C /W
	R <sub>θJC</sub> (1)	1.5		
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

**SuperPlanar™ Bridge Rectifiers**
**GBJ15J--GBJ15K**
**Electrical Characteristics** (@ $T_A = 25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Test conditions		Typ.	Max.	Units
Maximum instantaneous forward voltage	$V_F$	$I_F=7.5\text{A}$ Per Diode		0.90	0.95	V
		$I_F=15\text{A}$ Per Diode		0.98	1.05	
Maximum Reverse current	$I_R$	Rated $V_R$ , Per Diode	@ $T_A=25^\circ\text{C}$	0.5	2.0	$\mu\text{A}$
			@ $T_A=150^\circ\text{C}$	50	150	

# SuperPlanar™ Bridge Rectifiers

## GBJ15J--GBJ15K

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

Fig.1-Forward Current Derating Curve

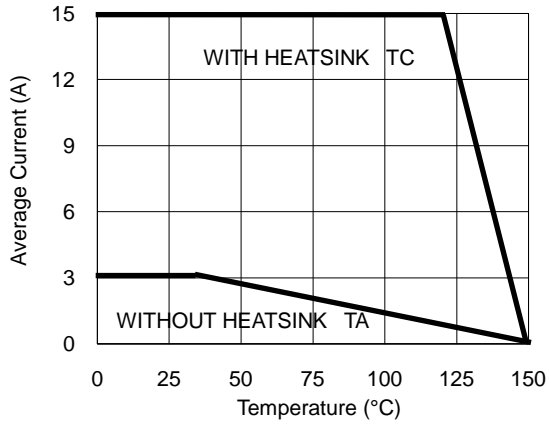


Fig.2- Surge Current Derating Curve

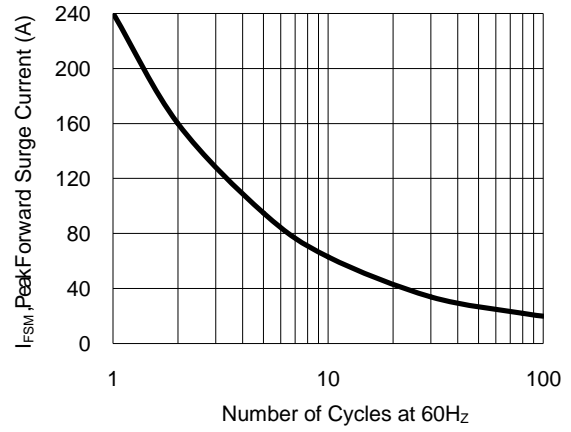


Fig.3- Typical Forward Voltage Characteristic

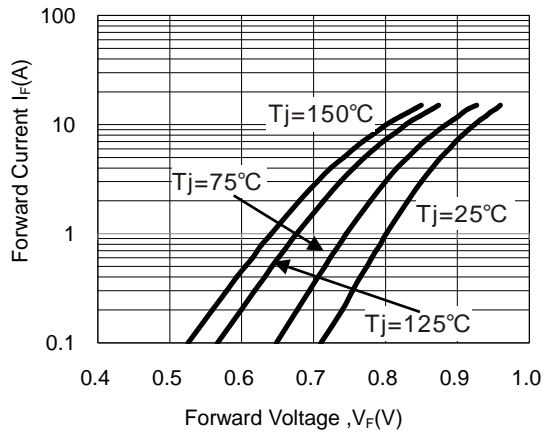
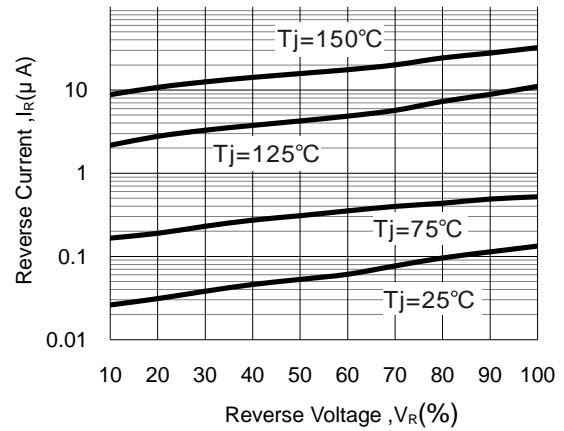


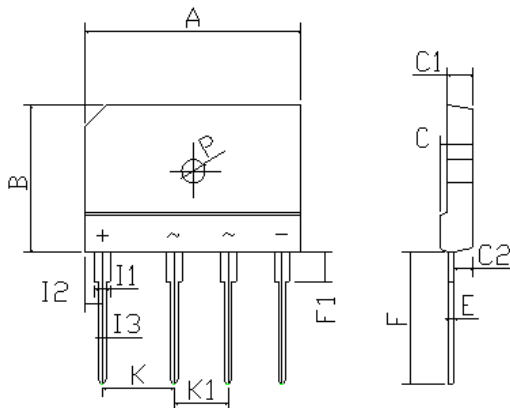
Fig.4- Typical Reverse Characteristic



# SuperPlanar™ Bridge Rectifiers

## GBJ15J--GBJ15K

### Package Outline Dimensions(unit:mm)



GBJ		
Dim	Min	Max
A	29.8	30.2
B	19.8	20.2
C	4.4	4.8
C1	3.4	3.8
C2	2.5	2.9
E	0.7typ	
F	17.2	17.8
F1	3.8	4.2
I1	1.8	2.3
I2	2.2	2.8
I3	1	1.4
K	9.7	10.3
K1	7.2	7.8
P	Ø3.2Typical	
All Dimensions in mm		

### Ordering Information

Part No.	Marking	Package	Shipping
GBJ15J	GBJ15J	GBJ	500/unit&Box
GBJ15K	GBJ15K	GBJ	500/unit&Box