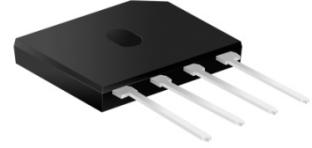


SuperPlanar™ Bridge Rectifiers

GBU30J - GBU30K

Features

- Planar passivated chips
- Ultra low leakage reverse current
- High temperature performance
- High surge current capability
- Ideal for printed circuit boards
- High-temp soldering guaranteed: 260°C @ 10s.
- RoHS compliant



Mechanical Data

- Case: GBU molded plastic
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Leads solderable per MIL-STD-750

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter		Symbol	GBU30J	GBU30K	Unit
Peak Repetitive Reverse Voltage		V _{RRM}	600	800	V
RMS Reverse Voltage		V _{RMS}	480	560	V
DC Blocking Voltage		V _{DC}	600	800	V
Maximum Average Forward Output Current		I _{F_AV}	30		A
Peak Forward Surge Current, 8.3ms Single Half Sine wave	@ T _J = 25°C	I _{FSM}	350		A
I ² t Rating for Fusing	@ T _J = 25°C	I ² t	508		A ² s

Thermal Characteristics

Parameter	Symbol	GBU30J	GBU30K	Unit
Typical Thermal Resistance*1, *2	R _{θJA} *2	35		°C/W
	R _{θJC} *1	4.2		
Operating Junction Temperature Range	T _J	-55 ~ +150		°C
Storage Temperature Range	T _{STG}	-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

GBU30J - GBU30K

Electrical Characteristics (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Typ.	Max.	Unit	
Maximum Instantaneous Forward Voltage	V _F	I _F = 15A Per Diode	-	0.98	V	
		I _F = 30A Per Diode	-	1.1		
Maximum Reverse Current	I _R	Rated V _R	@ T _A = 25°C	-	2	μA
			@ T _A = 150°C	-	800	

SuperPlanar™ Bridge Rectifiers

GBU30J - GBU30K

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

Fig.1 Forward Current Derating Curve

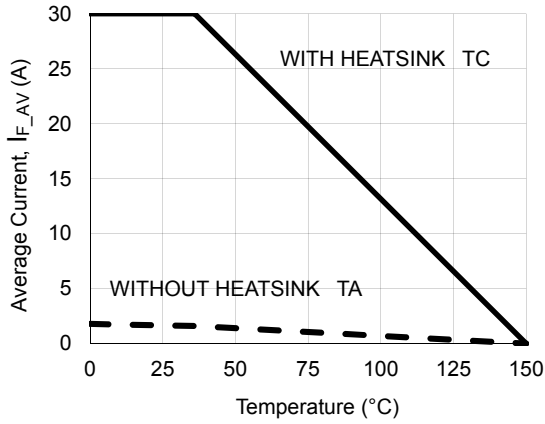


Fig.2 Surge Current Derating Curve

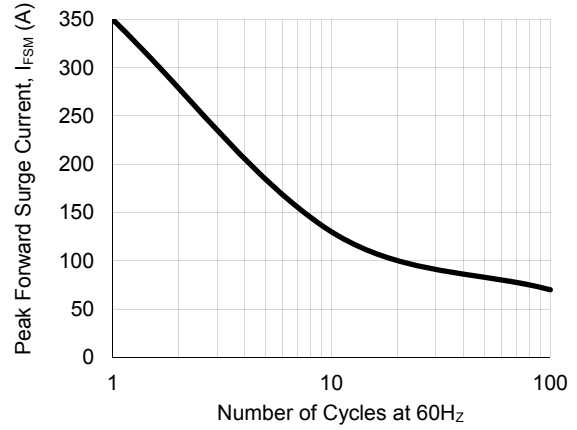


Fig.3 Typical Forward Voltage Characteristics

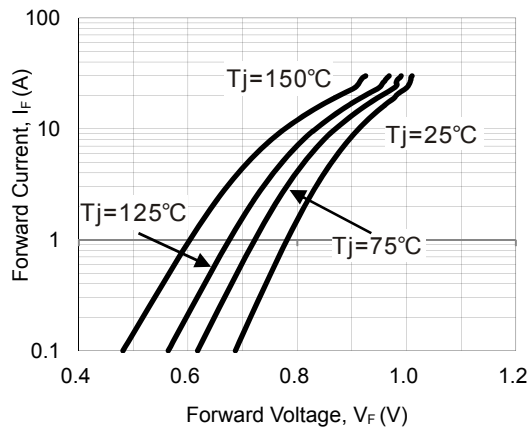
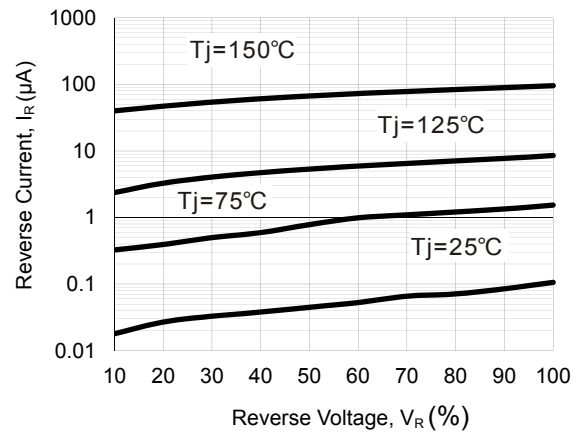


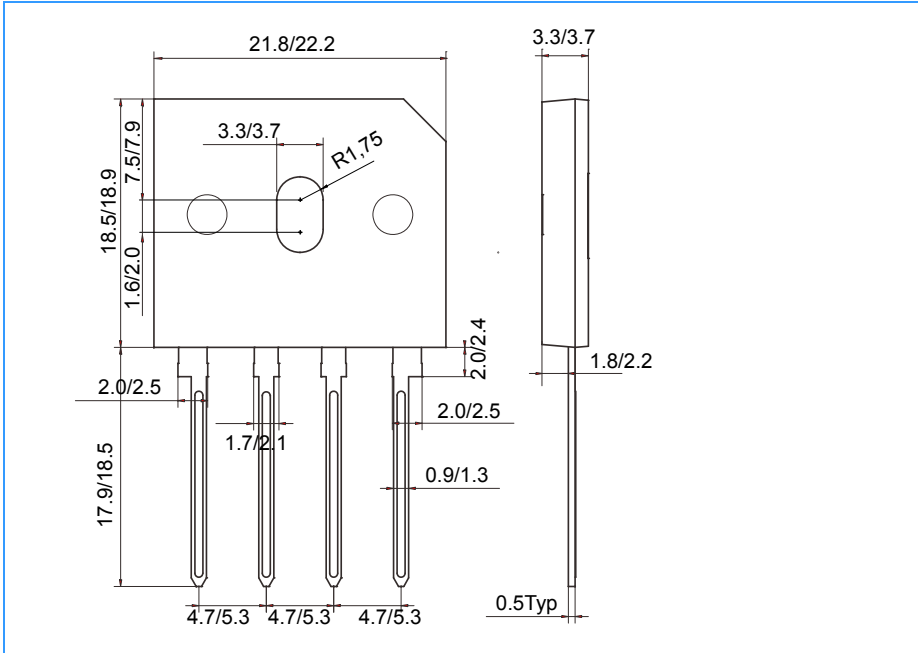
Fig.4 Typical Reverse Characteristics



SuperPlanar™ Bridge Rectifiers

GBU30J - GBU30K

Package Outline Dimensions (unit: mm)



Ordering Information

Part Number	Marking	Package
GBU30J	GBU30J	GBU
GBU30K	GBU30K	GBU