

SuperPlanar™ Low V_F Bridge Rectifiers

GBJ15JL

Features

- Planar passivated chips
- Ultra low leakage reverse current
- High temperature performance
- High surge current capability
- Ideal for printed circuit boards
- High soldering temperature guaranteed: 260°C @ 10s
- 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 (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	GBJ15JL	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	600	V
RMS Reverse Voltage	V_{RMS}	420	V
DC Blocking Voltage	V_{DC}	600	V
Average Forward Output Current	I_{F_AV}	15	A
Peak Forward Surge Current, 8.3ms Single Half Sine wave	@ $T_J = 25^\circ\text{C}$ I_{FSM}	400	A
I^2t Rating for Fusing	@ $T_J = 25^\circ\text{C}$ I^2t	664	A ² s

Thermal Characteristics

Parameter	Symbol	GBJ15JL	Unit
Typical Thermal Resistance*1, *2	$R_{\theta JA}^{*2}$	25.2	$^\circ\text{C/W}$
	$R_{\theta JC}^{*1}$	1.5	
Operating Junction Temperature Range	T_J	-55 ~ +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^\circ\text{C}$

Note *1: Unit mounted on p.c.b. of 65mm x 50mm x 2.4mm with aluminum plate heat sink

Note *2: Unit mounted on p.c.b. without heat sink

SuperPlanar™ Low V_F Bridge Rectifiers

GBJ15JL

Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions		Typ.	Max.	Unit
Instantaneous Forward Voltage	V_F	$I_F=7.5\text{A}$ Per Diode	@ $T_A=25^\circ\text{C}$	0.87	0.90	V
		$I_F=15\text{A}$ Per Diode	@ $T_A=25^\circ\text{C}$	0.90	0.95	
Reverse Current	I_R	Rated V_R , Per Diode	@ $T_A=25^\circ\text{C}$	0.2	2.0	μA
			@ $T_A=150^\circ\text{C}$	50	150	

SuperPlanar™ Low V_F Bridge Rectifiers

GBJ15JL

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

Fig. 1 Forward Current Derating Curve

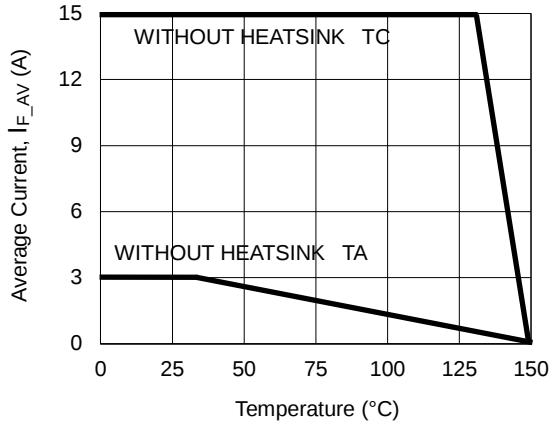


Fig. 2 Surge Current Derating Curve

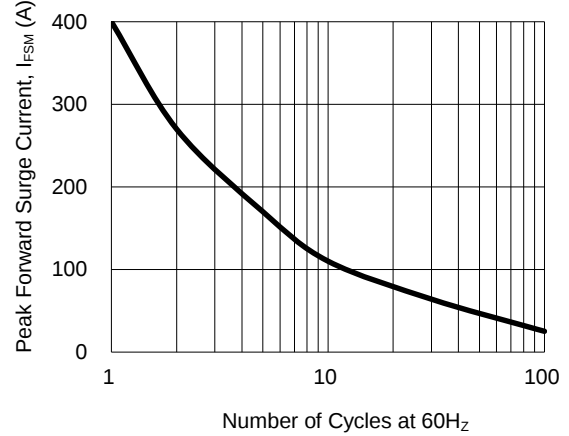


Fig. 3 Typical Forward Voltage Characteristics

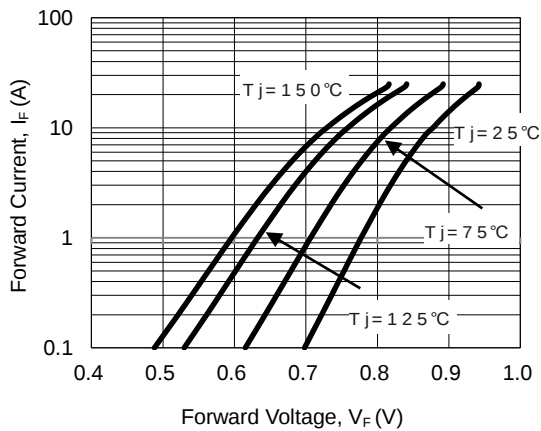
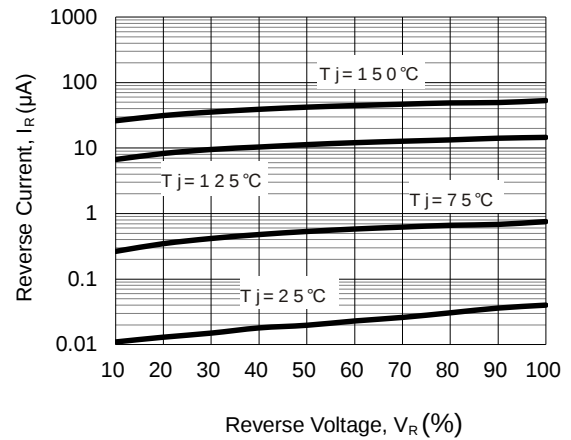


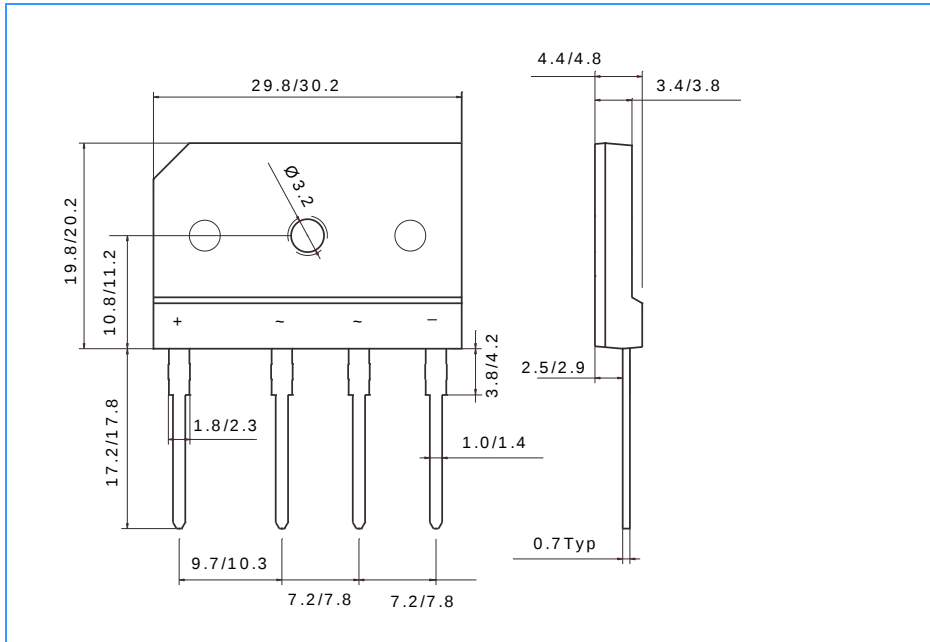
Fig. 4 Typical Reverse Characteristics



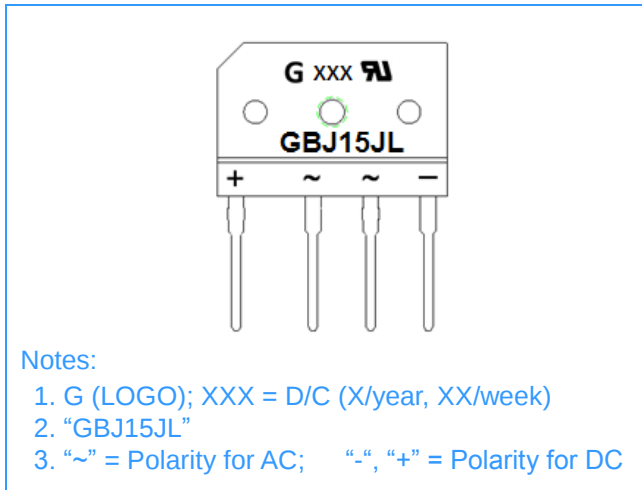
SuperPlanar™ Low V_F Bridge Rectifiers

GBJ15JL

Package Outline Dimensions (unit: mm)



Marking Codes



Ordering Information

Part No.	Marking	Package
GBJ15JL	GBJ15JL	GBJ

SuperPlanar™ Low V_F Bridge Rectifiers**GBJ15JL****Change Record**

Revision	Date	Modification
1.0	2023-07-24	First release.

1. SKETCH MAP OF PACKAGE



BOX

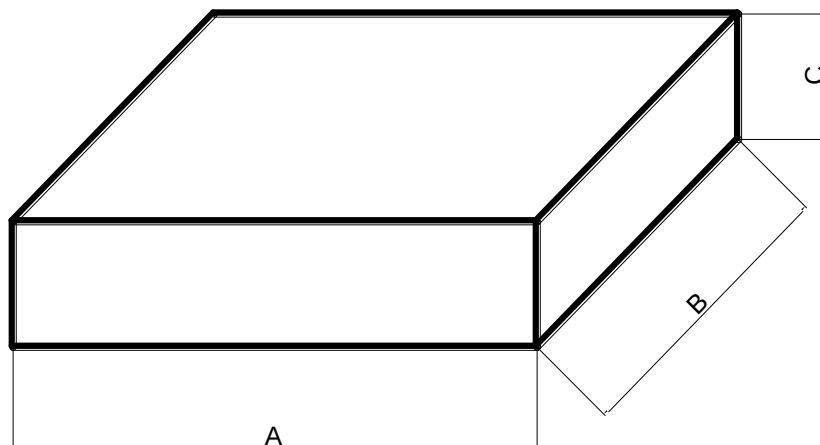


CARTON

2. CARRIER TAPE

PACKAGING CODE	CASE TYPE	Q'TY/BOX (pcs)	BOX SIZE (mm)	Q'TY/CARTON (pcs)	CARTON SIZE (mm)
HA	GBS	1000	288*186*28	12000	460*365*200
HB	GBU	500	230*205*40	3000	490*300*160
HC	GBL	500	205*210*28	4000	500*280*170
HD	KBJ	500	260*260*35	3000	600*330*150
HE	GBJ	500	310*260*40	3000	605*390*160

1.GBJ内盒(Unit in mm)



代号	A	B	C
尺寸	310 ± 5	260 ± 5	40 ± 5