

**Ultra Low VF Bridge Rectifier with Super Low Leakage Current**

**Voltage**

**600 V**

**Current**

**25A**

**GBU-2**

**Features**



- Oxide planar chip junction
- Low forward voltage drop (VF@0.75V)
- Low leakage current (IR@20uA)
- UL recognition file number E526209
- Lead free in compliance with EU RoHS 2.0
- Halogen-free according to IEC 61249 standard

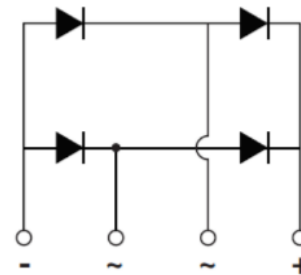


**Mechanical Data**

- Case : GBU-2 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 3.8348 grams

**Application**

- Computing Power / Desktop Power
- Game Console Power
- Server Power
- Air Conditioner out door power board
- High Power/High Efficiency Power
- Home Appliances Power Board



Key Parameters	
Parameter	Value
<b>V<sub>RRM</sub></b>	<b>600V</b>
<b>I<sub>F(AV)</sub></b>	<b>25A</b>
<b>I<sub>FSM</sub></b>	<b>350A</b>
<b>V<sub>F@125°C</sub></b>	<b>0.75V</b>
<b>I<sub>R</sub></b>	<b>1uA</b>
<b>Package</b>	<b>GBU-2</b>

**Maximum Ratings and Thermal Characteristics** ( $T_A = 25\text{ }^\circ\text{C}$  unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	600	V
Maximum RMS Voltage	$V_{RMS}$	420	V
Maximum DC Blocking Voltage	$V_{DC}$	600	V
Maximum Average Forward Current	With heatsink	25	A
	Without heatsink	3.8	
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	@ $T_A = 25\text{ }^\circ\text{C}$	350	A
	@ $T_A = 125\text{ }^\circ\text{C}$	280	
Peak Forward Surge Current : 1.0 ms Single Half Sine-Wave Superimposed On Rated Load	@ $T_A = 25\text{ }^\circ\text{C}$	600	A
	@ $T_A = 125\text{ }^\circ\text{C}$	500	
$I^2 t$ rating for fusing ( $t = 8.3\text{ms}$ )	$I^2 t$	508	$A^2S$
Typical Junction Capacitance Measured at 1 MHZ And Applied $V_R = 4\text{ V}$	$C_J$	190	pF
Typical Thermal Resistance (Note 1) (with heatsink)	$R_{\theta JA}$	6	$^\circ\text{C/W}$
	$R_{\theta JL}$	3	
	$R_{\theta JC}$	1.2	
Operating junction and storage temperature range	$T_J, T_{STG}$	-55~150	$^\circ\text{C}$
Mounting torque @ Recommend torque:5Kg.cm	Tor	8	Kg.cm

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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	$V_F$	$I_F = 12.5\text{ A}, T_J = 25\text{ }^\circ\text{C}$	-	0.88	0.92	V
		$I_F = 12.5\text{ A}, T_J = 125\text{ }^\circ\text{C}$	-	0.75	-	
Reverse Current	$I_R$	$V_R = 600\text{ V}, T_J = 25\text{ }^\circ\text{C}$	-	0.2	1	uA
		$V_R = 600\text{ V}, T_J = 125\text{ }^\circ\text{C}$	-	20	-	

NOTES :

1. Device mounted on 200 mm \* 200 mm \* 20 mm Cu Plate heat sink .

TYPICAL CHARACTERISTIC CURVES

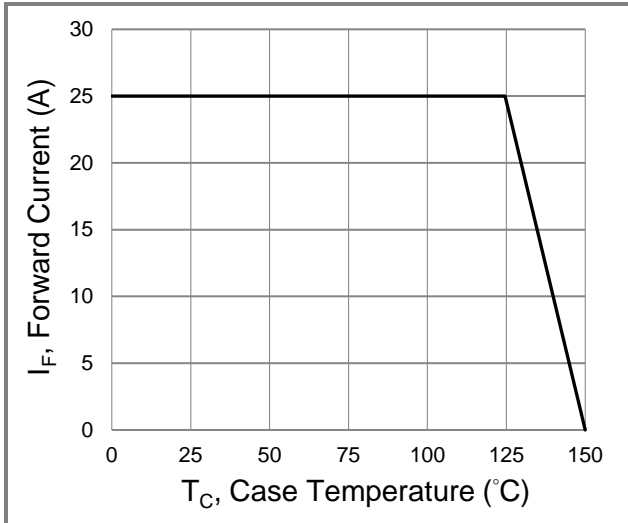


Fig.1 Forward Current Derating Curve

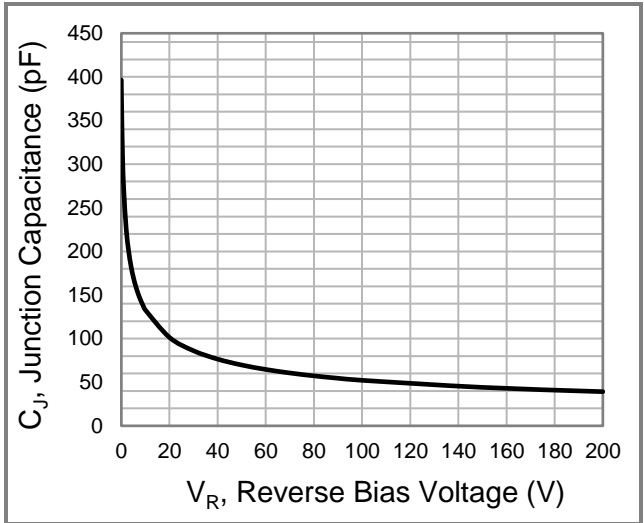


Fig.2 Typical Junction Capacitance

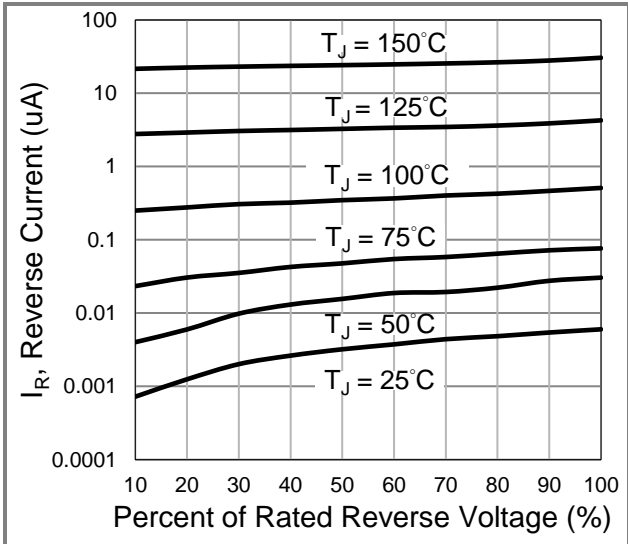


Fig.3 Typical Reverse Characteristics

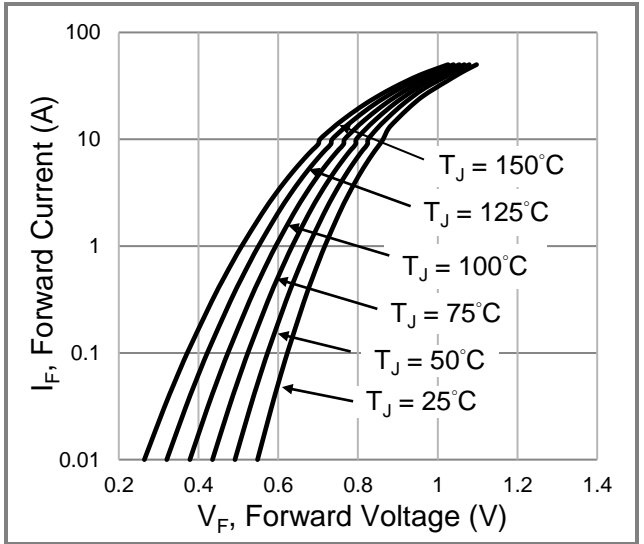
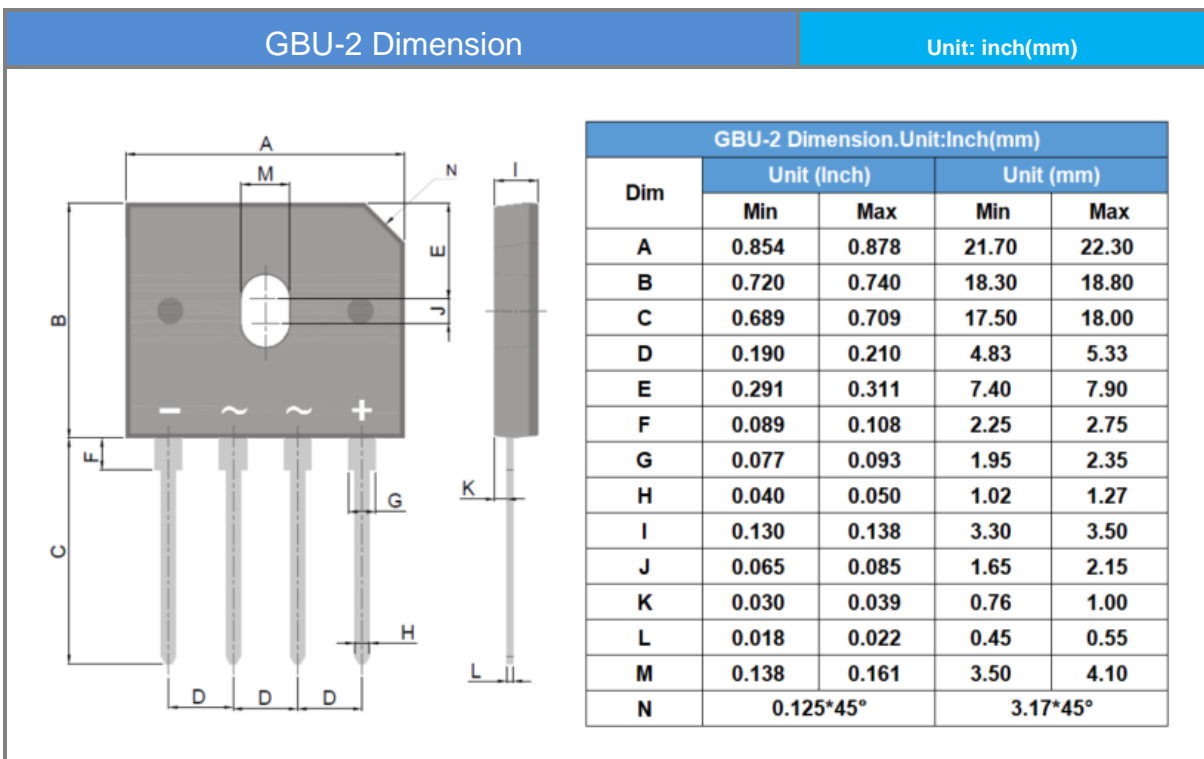


Fig.4 Typical Forward Characteristics

**Product and Packing Information**

Part No.	Package Type	Packing Type	Marking
GBU2506ULV	GBU-2	20 pcs / tube	GBU2506ULV

**Packaging Information**



## Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.