Ultra Low VF Bridge Rectifier with Super Low Leakage Current

Voltage	600 V	Current	15 A

GBU-2

Features

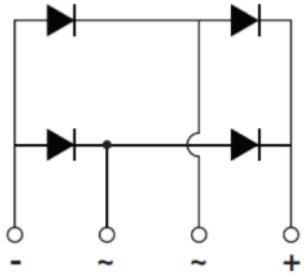
- Oxide planar chip junction
- Low forward voltage drop (VF@0.75V)
- Low leakage current (IR@20uA)
- UL recognition file number E526209
- Lead free in compliance with EU RoHS 2.0
- Halogen-free according to IEC 61249 standard

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**
V_{RRM}	600V
$I_F(AV)$	15A
I_{FSM}	220A
V_F@125˚C	0.75V
I_R	1uA
Package	GBU-2

Maximum Ratings and Thermal Characteristics (T_A = 25 °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	$I_{F(AV)}$	15	A
	Without heatsink		4	
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	@ T_A = 25 °C	I_{FSM}	220	A
	@ T_A = 125 °C		176	
Peak Forward Surge Current : 1.0 ms Single Half Sine-Wave Superimposed On Rated Load	@ T_A = 25 °C	I_{FSM}	440	A
	@ T_A = 125 °C		352	
I^2t rating for fusing (t = 8.3ms)		I^2t	200	A^2S
Typical Junction Capacitance Measured at 1 MHZ And Applied V_R = 4 V		C_J	130	pF
Typical Thermal Resistance (Note 1) (with heatsink)		$R_{\theta JA}$	8	°C/W
		$R_{\theta JL}$	3	
		$R_{\theta JC}$	1.2	
Operating junction and storage temperature range		T_J, T_{STG}	-55~150	°C
Mounting torque @ Recommend torque:5Kg.cm		Tor	8	Kg.cm

Electrical Characteristics (T_A = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	I_F = 7.5 A, T_J = 25 °C	-	0.88	0.92	V
		I_F = 7.5 A, T_J = 125 °C	-	0.75	-	
Reverse Current	I_R	V_R = 600 V, T_J = 25 °C	-	0.2	1	uA
		V_R = 600 V, T_J = 125 °C	-	20	-	

NOTES :

1. Device mounted on 200 mm * 200 mm * 10 mm Cu Plate heat sink.

TYPICAL CHARACTERISTIC CURVES

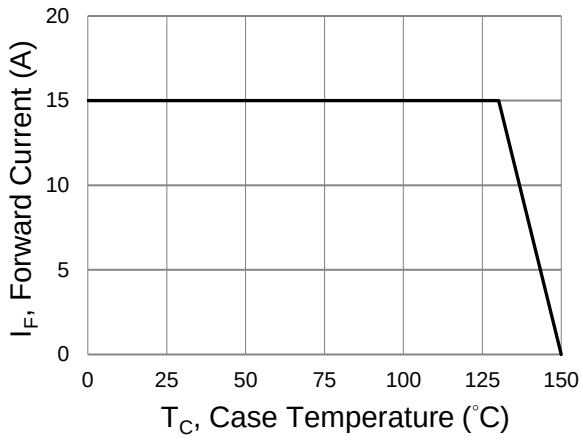


Fig.1 Forward Current Derating Curve

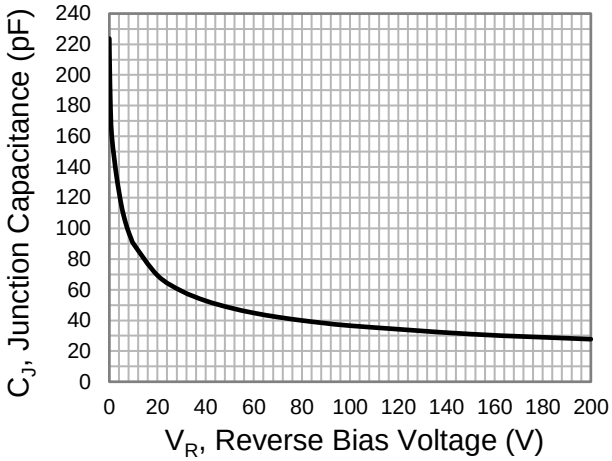


Fig.2 Typical Junction Capacitance

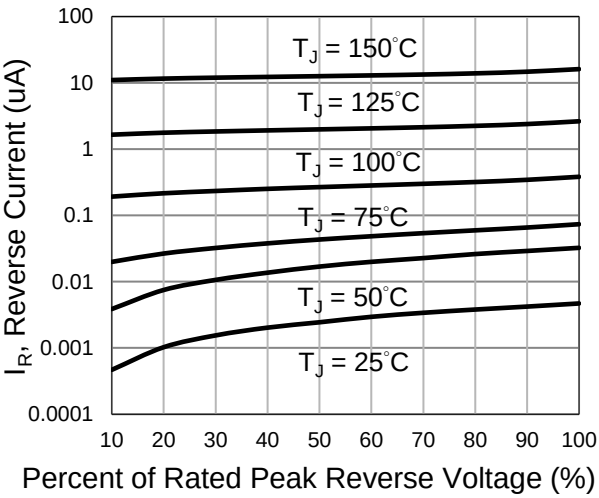


Fig.3 Typical Reverse Characteristics

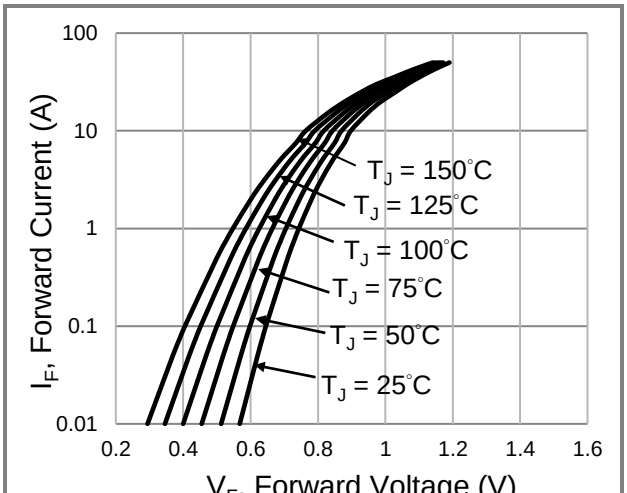


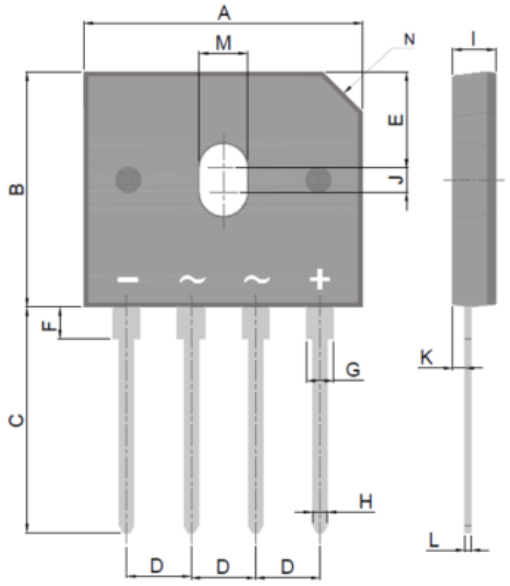
Fig.4 Typical Forward Characteristics

Product and Packing Information

Part No.	Package Type	Packing Type	Marking
GBU1506ULV	GBU-2	20 pcs / tube	GBU1506ULV

Packaging Information

GBU-2 Dimension — Unit: inch(mm)



GBU-2 Dimension.Unit:Inch(mm)				
Dim	Unit (Inch)		Unit (mm)	
	Min	Max	Min	Max
A	0.854	0.878	21.70	22.30
B	0.720	0.740	18.30	18.80
C	0.689	0.709	17.50	18.00
D	0.190	0.210	4.83	5.33
E	0.291	0.311	7.40	7.90
F	0.089	0.108	2.25	2.75
G	0.077	0.093	1.95	2.35
H	0.040	0.050	1.02	1.27
I	0.130	0.138	3.30	3.50
J	0.065	0.085	1.65	2.15
K	0.030	0.039	0.76	1.00
L	0.018	0.022	0.45	0.55
M	0.138	0.161	3.50	4.10
N	0.125*45°		3.17*45°	

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