

Ultra Low VF Bridge Rectifier with Super Low Leakage Current

Voltage

600 V

Current

35A

GBJ-2

Features

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

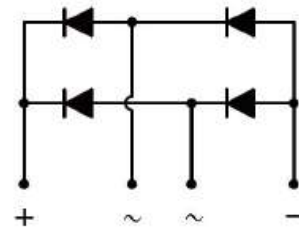


Mechanical Data

- Case : GBJ-2 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 6.6972 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
$I_F(AV)$	35A
I_{FSM}	400A
$V_F@125^{\circ}C$	0.75V
I_R	1uA
Package	GBJ-2

Maximum Ratings and Thermal Characteristics ($T_A = 25^\circ\text{C}$ 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	$I_{F(AV)}$	35	A
	Without heatsink		7	
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	@ $T_A = 25^\circ\text{C}$	I_{FSM}	400	A
	@ $T_A = 125^\circ\text{C}$		320	
Peak Forward Surge Current : 1.0 ms Single Half Sine-Wave Superimposed On Rated Load	@ $T_A = 25^\circ\text{C}$	I_{FSM}	800	A
	@ $T_A = 125^\circ\text{C}$		640	
$I^2 t$ rating for fusing ($t = 8.3\text{ms}$)		$I^2 t$	664	A^2S
Typical Junction Capacitance Measured at 1 MHz And Applied $V_R = 4\text{ V}$		C_J	280	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

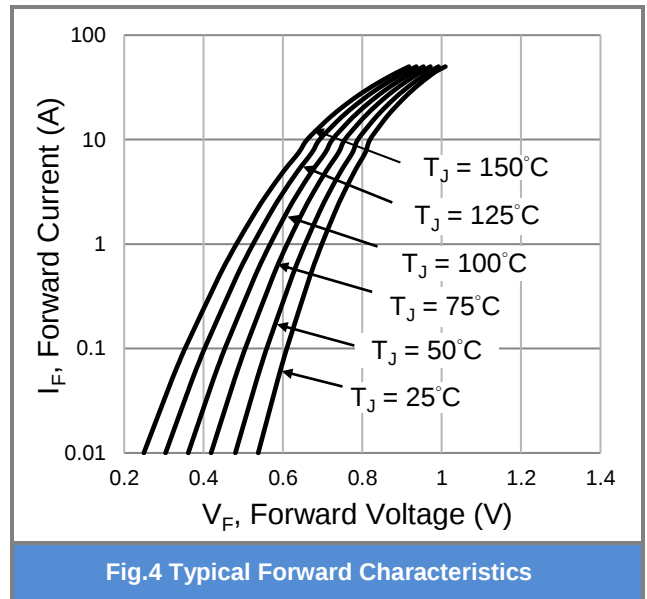
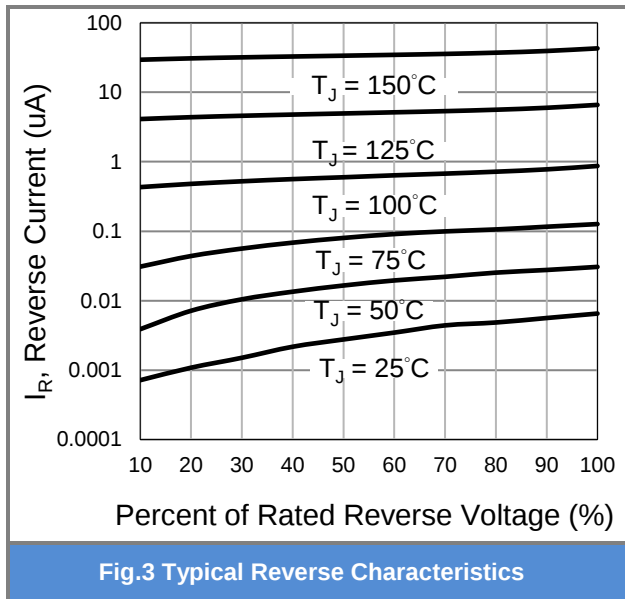
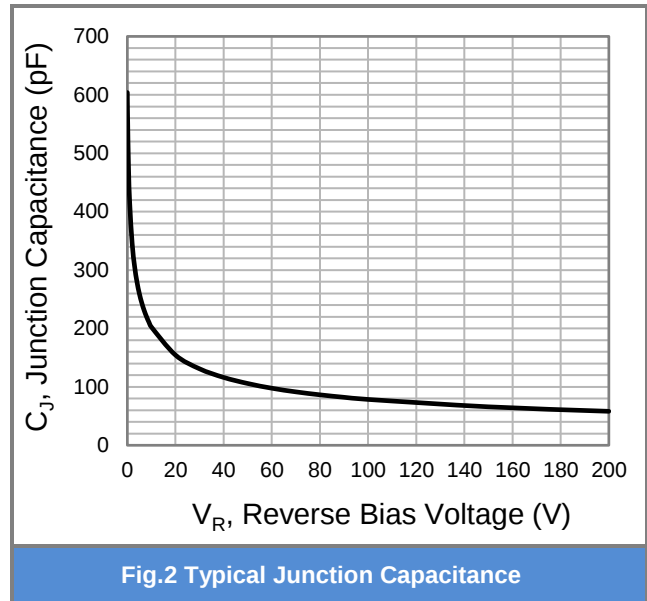
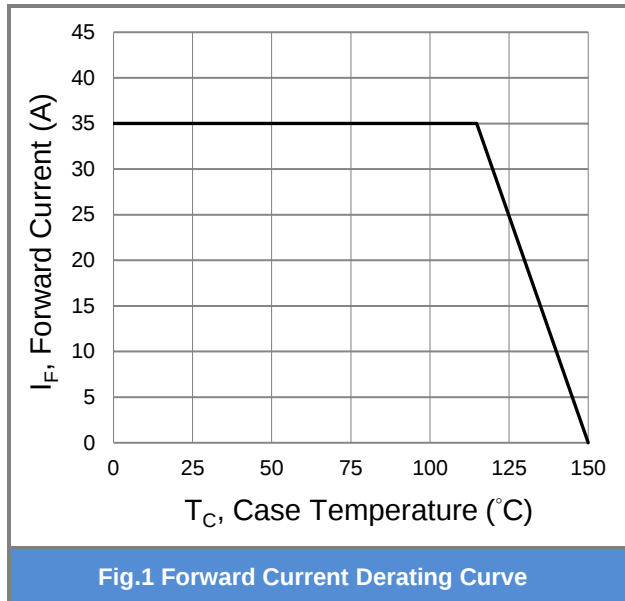
Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	$I_F = 17.5\text{ A}, T_J = 25^\circ\text{C}$	-	0.88	0.92	V
		$I_F = 17.5\text{ A}, T_J = 125^\circ\text{C}$	-	0.75	-	
Reverse Current	I_R	$V_R = 600\text{ V}, T_J = 25^\circ\text{C}$	-	0.2	1	μA
		$V_R = 600\text{ V}, T_J = 125^\circ\text{C}$	-	20	-	

NOTES :

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

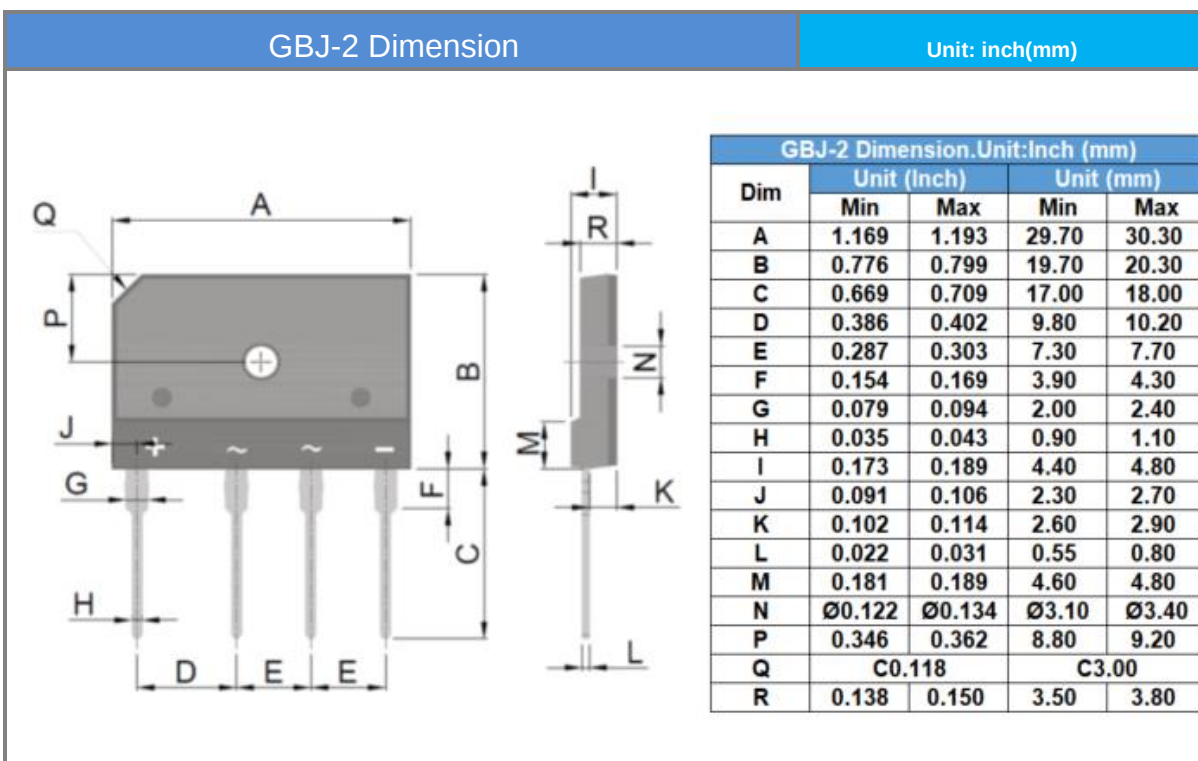
TYPICAL CHARACTERISTIC CURVES



Product and Packing Information

Part No.	Package Type	Packing Type	Marking
GBJ3506ULV	GBJ-2	15 pcs / tube	GBJ3506ULV

Packaging Information



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