

800V With High Tj Ultra Low VF Bridge Rectifier

Voltage

800 V

Current

15A

Features

- Oxide planar chip junction
- Low forward voltage drop (VF@0.72V)
- Low leakage current (IR@20uA)
- Lead free in compliance with EU RoHS 2.0
- Halogen-free according to IEC 61249 standard



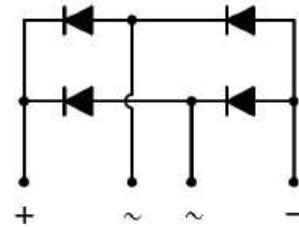
Mechanical Data

- Case : GBJ-2 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 6.6972 grams

Application

- Power: Server / AI / IND
- PC Power: 80+Platinum Titanium
- Power: Redundant / Telecom
- Gaming Power: NB / PC
- PD > 100W

GBJ-2



Key Parameters	
Parameter	Value
V_{RRM}	800V
$I_F(AV)$	15A
I_{FSM}	220A
$V_F@175^{\circ}C$	0.72V
I_R	1uA
$T_J \text{ max.}$	175^{\circ}C
Package	GBJ-2

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}	800	V
Maximum RMS Voltage		V_{RMS}	560	V
Maximum DC Blocking Voltage		V_{DC}	800	V
Maximum Average Forward Current	With heatsink	$I_{F(AV)}$	15	A
	Without heatsink		5.7	
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	@ $T_A = 25\text{ }^{\circ}\text{C}$	I_{FSM}	220	A
	@ $T_A = 125\text{ }^{\circ}\text{C}$		176	
Peak Forward Surge Current : 1.0 ms Single Half Sine-Wave Superimposed On Rated Load	@ $T_A = 25\text{ }^{\circ}\text{C}$	I_{FSM}	400	A
	@ $T_A = 125\text{ }^{\circ}\text{C}$		352	
$I^2 t$ rating for fusing ($t = 8.3\text{ms}$)		$I^2 t$	200	A^2S
Typical Junction Capacitance Measured at 1 MHZ And Applied $V_R = 4\text{ V}$		C_J	100	pF
Typical Thermal Resistance (Note 1) (with heatsink)	$R_{\theta JA}$		6	$^{\circ}\text{C/W}$
	$R_{\theta JL}$		3	
	$R_{\theta JC}$		1	
Operating junction and storage temperature range		T_J, T_{STG}	-55~175	$^{\circ}\text{C}$
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	$I_F = 7.5\text{ A}, T_J = 25\text{ }^{\circ}\text{C}$	-	0.88	0.92	V
		$I_F = 7.5\text{ A}, T_J = 125\text{ }^{\circ}\text{C}$	-	0.75	-	
Reverse Current	I_R	$V_R = 800\text{ V}, T_J = 25\text{ }^{\circ}\text{C}$	-	0.2	1	μA
		$V_R = 800\text{ V}, T_J = 125\text{ }^{\circ}\text{C}$	-	20	-	

NOTES :

1. Device mounted on 100 mm * 94 mm * 26 mm Fin type heat sink.

TYPICAL CHARACTERISTIC CURVES

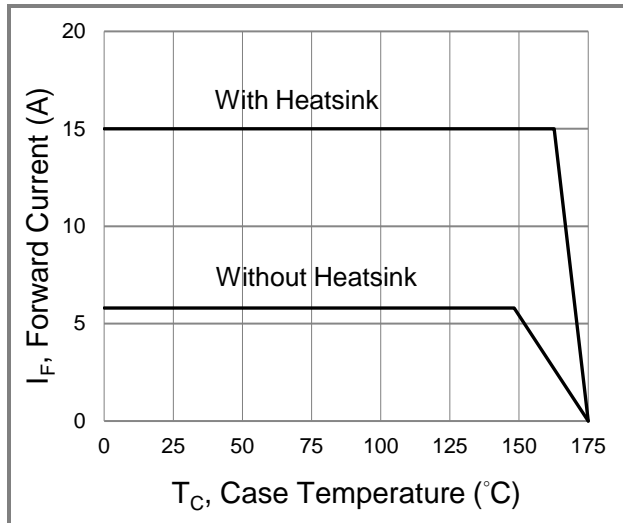


Fig.1 Forward Current Derating Curve

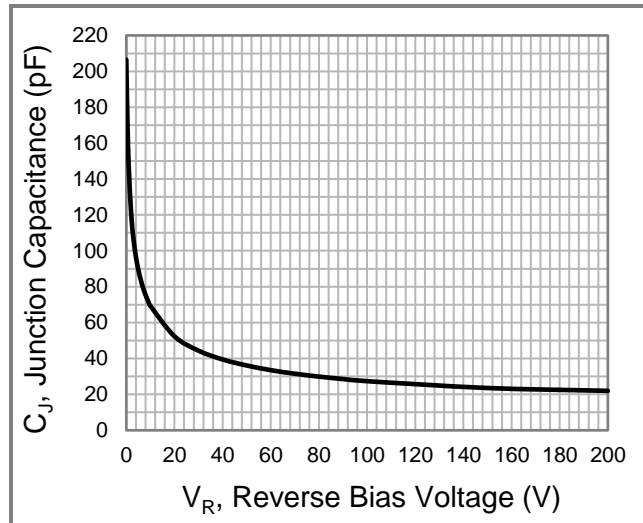


Fig.2 Typical Junction Capacitance

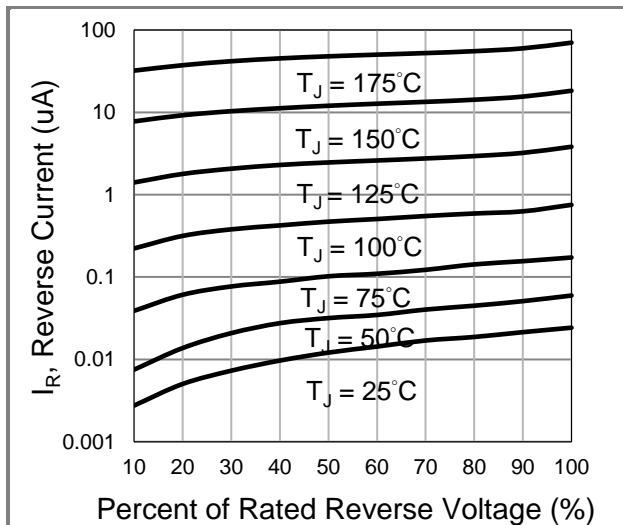


Fig.3 Typical Reverse Characteristics

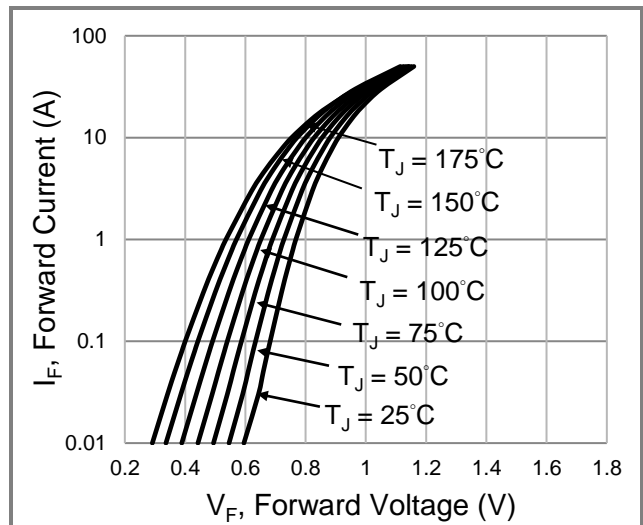
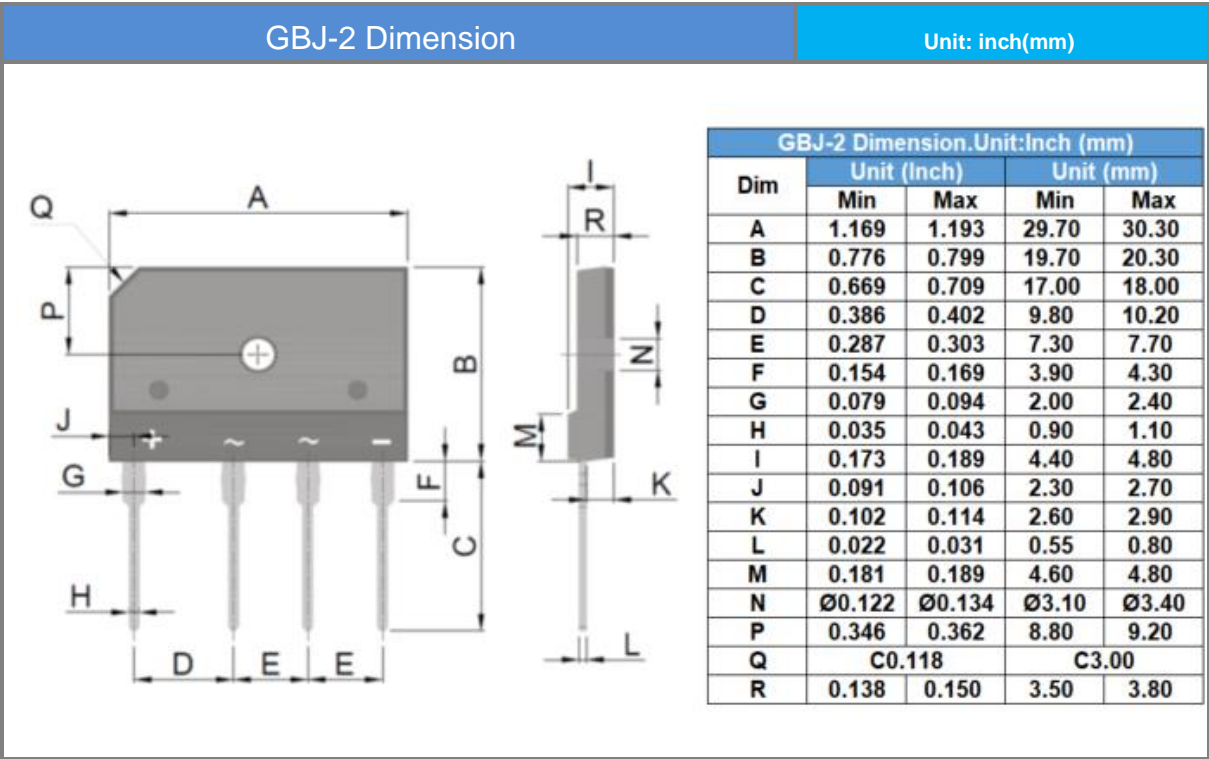


Fig.4 Typical Forward Characteristics

Product and Packing Information

Part No.	Package Type	Packing Type	Marking
GBJ1508HULV	GBJ-2	15 pcs / tube	GBJ1508HULV

Packaging Information



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