

Glass Passivated Low Profile Bridge Rectifier

Voltage

600 V

Current

25A

Features

- Glass passivated chip junction
- Thin single in-line package
- High surge current capability



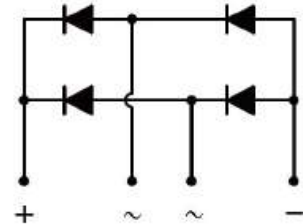
Mechanical Data

- Case : GBJA Package
- Molding compound meets UL 94 V-0 flammability Rating, RoHS-compliant, Halogen free
- Terminals : Tin plated leads , Solderable per J-STD-002 and JESD22-B102
- Approx. Weight : 4.422 grams

Application

- Slim Adapter Power
- Game Console Power
- TV Power

GBJA



Key Parameters	
Parameter	Value
V_{RRM}	600V
$I_F(AV)$	25A
I_{FSM}	360A
I_R	5uA
$T_J \text{ max.}$	150°C
Package	GBJA

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	$I_{F(AV)}$	25	A
	Without heatsink		3.5	
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	@ $T_A = 25^\circ\text{C}$	I_{FSM}	360	A
	@ $T_A = 125^\circ\text{C}$		288	
Peak Forward Surge Current : 1.0 ms Single Half Sine-Wave Superimposed On Rated Load	@ $T_A = 25^\circ\text{C}$	I_{FSM}	720	A
	@ $T_A = 125^\circ\text{C}$		576	
$I^2 t$ rating for fusing ($t = 8.3\text{ms}$)		$I^2 t$	537	A^2S
Typical Junction Capacitance Measured at 1 MHz And Applied $V_R = 4\text{ V}$		C_J	116	pF
Typical Thermal Resistance (Note1)		$R_{\theta JA}$	10	$^\circ\text{C/W}$
		$R_{\theta JL}$	2	
		$R_{\theta JC}$	1	
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

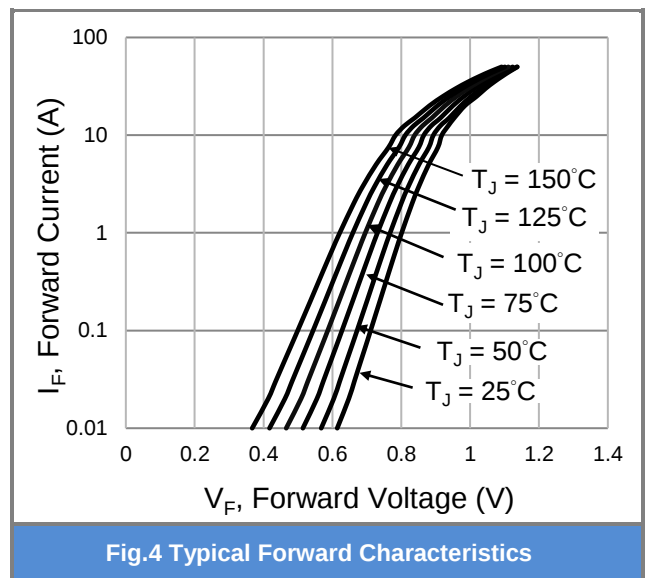
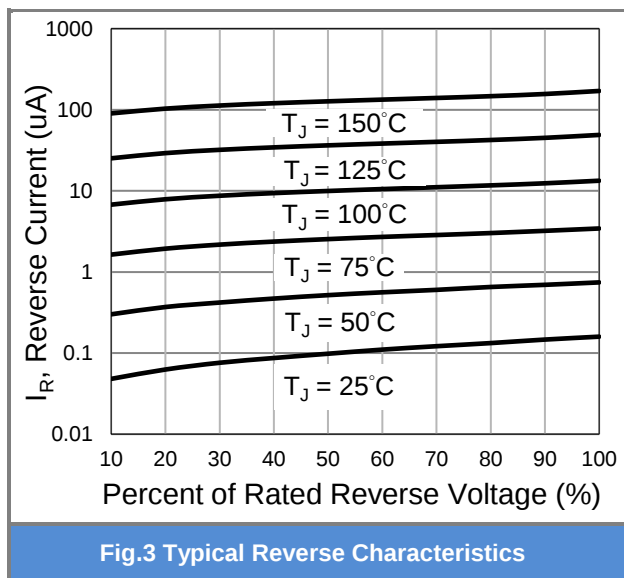
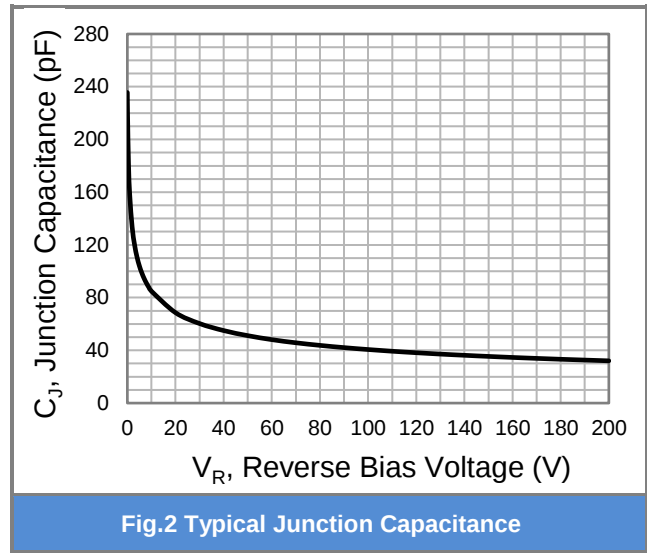
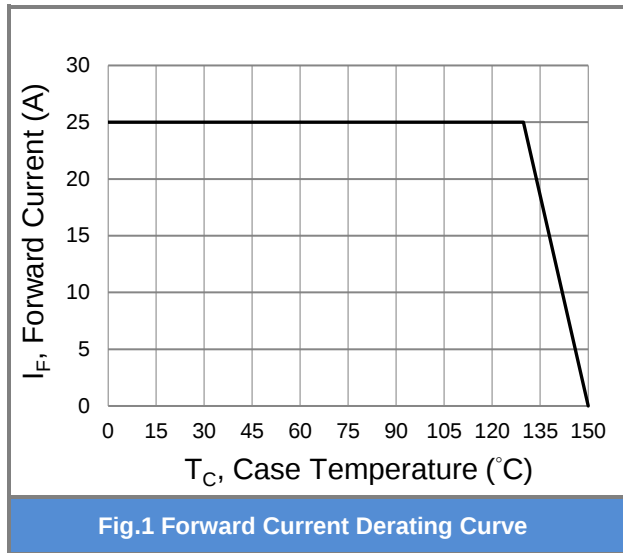
Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	$I_F = 12.5\text{ A}, T_J = 25^\circ\text{C}$	-	-	1.0	V
Reverse Current	I_R	$V_R = 600\text{ V}, T_J = 25^\circ\text{C}$	-	-	5	μA
		$V_R = 600\text{ V}, T_J = 125^\circ\text{C}$	-	-	100	

NOTES :

1. Device mounted on 75mm * 45mm * 5.5mm Aluminum Plate Heatsink.

TYPICAL CHARACTERISTIC CURVES



Product and Packing Information

Part No.	Package Type	Packing Type	Marking
GBJA2506	GBJA	15 pcs / tube	GBJA2506

Packaging Information

GBJA Dimension		Unit: inch(mm)			
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The technical drawing shows the GBJA2506 package from two perspectives. The top view is a rectangle with dimensions E (width) and D (height). It features a central circular marking with a '+' sign and two smaller circular markings on either side. The bottom view shows four pins with dimensions b1 (pin width), b (pin spacing), e1 (pin pitch), e (pin width), and L (pin length). The side view shows the package profile with dimensions A (total height), A1 (pin height), A2 (package body height), D2 (package body height), and c (pin diameter).

GBJA Dimension.Unit:Inch (mm)					
Dim	Unit (Inch)		Unit (mm)		
	Min	Max	Min	Max	
A	0.169	0.193	4.30	4.90	
A1	0.098	0.114	2.50	2.90	
A2	0.130	0.154	3.30	3.90	
b	0.035	0.043	0.90	1.10	
b1	0.059	0.067	1.50	1.70	
C	0.016	0.024	0.40	0.60	
D	0.559	0.583	14.20	14.80	
D1	0.614	0.638	15.60	16.20	
D2	0.343	0.366	8.70	9.30	
E	1.13	1.154	28.70	29.30	
e	0.287	0.303	7.30	7.70	
e1	0.386	0.402	9.80	10.20	
L	0.575	0.598	14.60	15.20	
M	Ø0.122	Ø0.134	Ø3.10	Ø3.40	

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