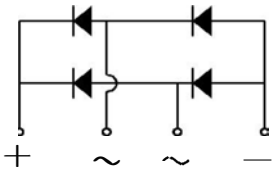
GBJ4006E50

01-Jul-2026

Special For DC-AC Rectifier Bridge

GBJ



Features

- Compliant with RoHS Provisions
- Low forward voltage, high forward current
- High forward surge current capability
- High heat-conducting performance
- Thermal welding performance: 260℃/ 10sec

Applications

- Switching Power Supply
- Home Appliances, Office Devices
- Industrial Auto-equipments

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	GBJ4006E50	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
Average Rectified Output Current	I_o	40.0	A
Reverse Recovery Time.I_F=0.5A,I_R=1A,I_{RR}=0.25A	Trr	75	ns
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	350	A
I^2t rating for fusing (1ms< t < 8.3ms)	I^2t	508.3	A^2S
Maximum Forward Voltage at 20.0 A	V_F	1.65	V
Dielectric Strength:Terminals to Case,AC 1 minute	Vdis	2.5	KV
Mounting torque	TOR	Recommended torque:0.5	N.m
Maximum DC Reverse Current @TA=25 °C at Rated DC Blocking Voltage @TA=125 °C	IR	10 500	μA
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C
Typical thermal resistance (Note 1)	RthJA	22	°C/W

Note: 1. Thermal resistance junction to case, lead and ambient in accordance with JESD-51.
Unit mounted on glass-epoxy substrate with 1oz/ft2_20x20 mm copper pad per pin with heatsink

Ratings And Characteristics Curves (TA = 25 ˚C unless otherwise noted)

Fig.1 Current Derating, Case

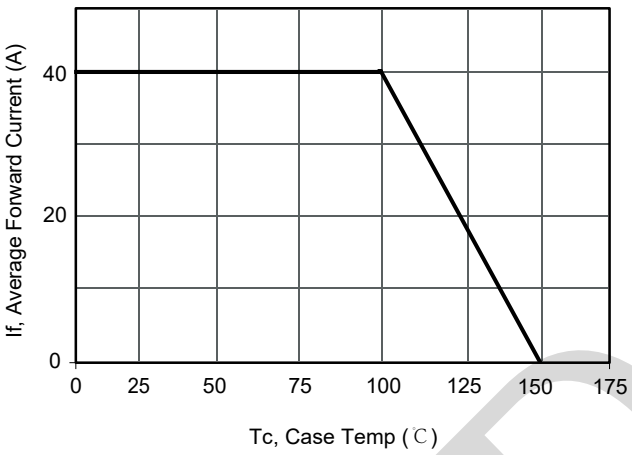


Fig.2 Maximum Non-Repetitive Peak Forward Surage Current

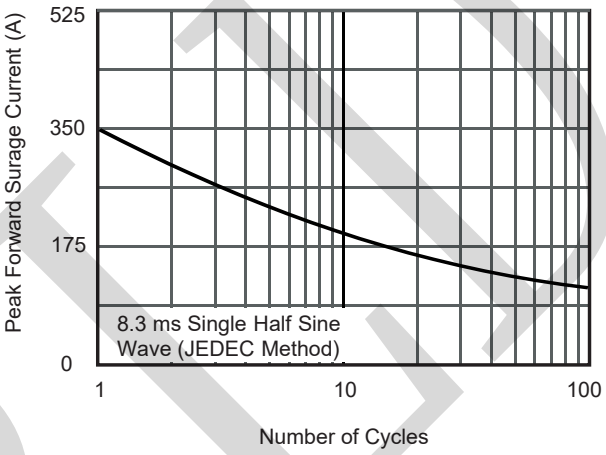


Fig.3 Typical Forward Voltage

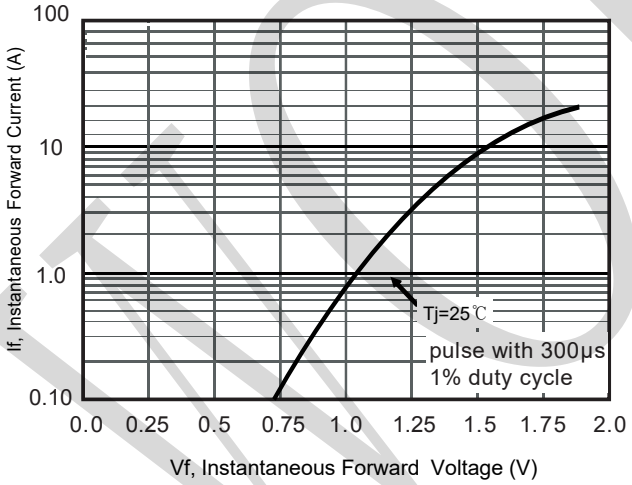
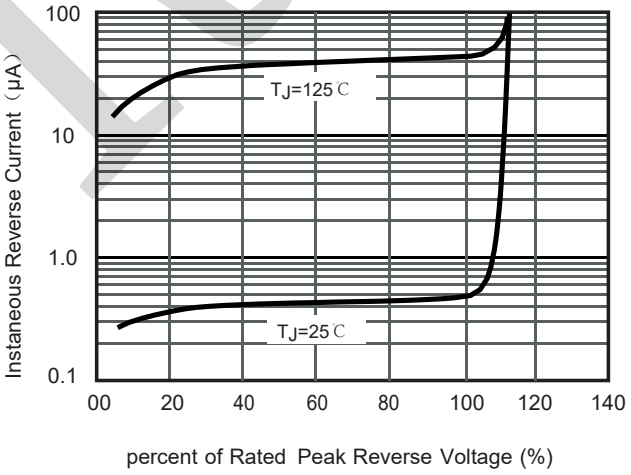


Fig.4 Typical Reverse Characteristics



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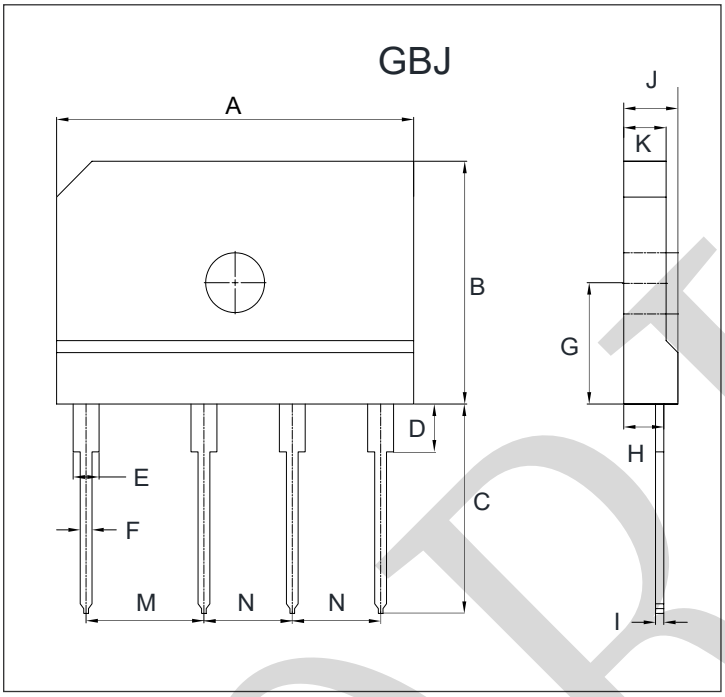
PACKAGE OUTLINE DIMENSIONS

Note:unit In(mm)



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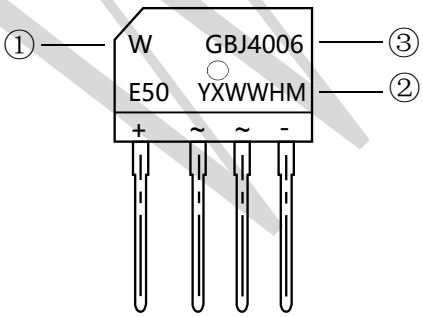
Dim	Min	Max
A	29.5	30.5
B	19.5	20.5
C	17.0	18.0
D	3.5	4.5
E	1.5	2.5
F	0.8	1.2
G	10.5	11.5
H	2.4	3.0
I	0.5	0.7
J	4.3	4.9
K	3.3	3.9
M	9.6	10.6
N	7.2	7.6

MARKING INFORMATION



①W : Company's trademark

②Product model : GBJ4006E50

③PDC information：

Y X WW H M

- M:Internal identification code 2
- H:Halogen-free
- WW:Week code(01 to 53)
- X:Internal identification code 1
- Y:Year code(ex:0=2020)

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Revision Histor			
Date	Revision	Description & changes	Author
2019.11.08	1.0	Initial version	Sun
2020.11.08	1.1	Add printed characters	Sun
2026.07.01	1.2	Version updating	Ren

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