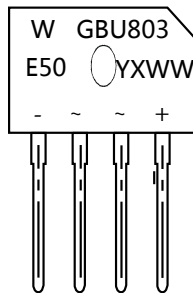


## Special For DC-AC Rectifier Bridge



### PINNING

PIN	DESCRIPTION
1	Input Pin ( ~ )
2	Input Pin ( ~ )
3	Output Anode ( + )
4	Output Cathode ( - )

### Features

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

### Applications

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

### Maximum Ratings and Electrical characteristics

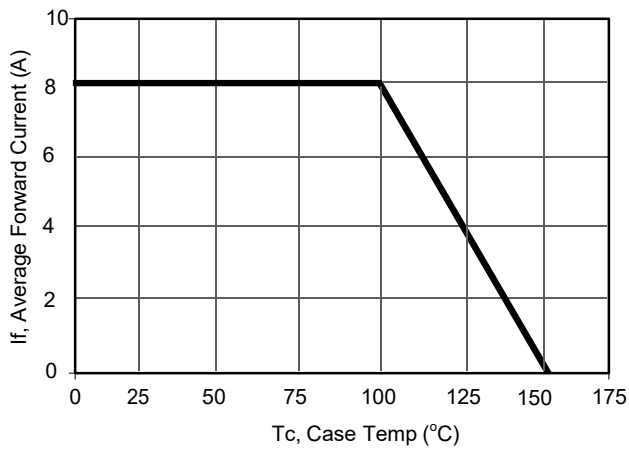
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbol	GBU803E50	GBU806E50	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	300	600	V
Maximum RMS voltage	$V_{RMS}$	210	420	V
Maximum DC Blocking Voltage	$V_{DC}$	300	600	V
Average Rectified Output Current	$I_o$	8		A
Reverse Recovery Time. $I_F=0.5A, I_R=1A, I_{RR}=0.25A$	$T_{rr}$	50		ns
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	175		A
$I^2 t$ rating for fusing ( 1ms < t < 8.3ms)	$I^2 t$	127		A <sup>2</sup> S
Dielectric Strength: Terminals to Case, AC 1 minute	$V_{dis}$	2.5		KV
Mounting torque	TOR	Recommended torque:0.5		N.m
Maximum Forward Voltage at 4.0 A	$V_F$	1.1	1.35	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	10 500		μA
Junction to ambient , without heatsink @ $T_A=25\text{ }^\circ\text{C}$ Junction to case, with heatsink @ $T_A=125\text{ }^\circ\text{C}$	$R_{\theta JA}$ $R_{\theta JC}$	22 3		°C/W
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150		°C

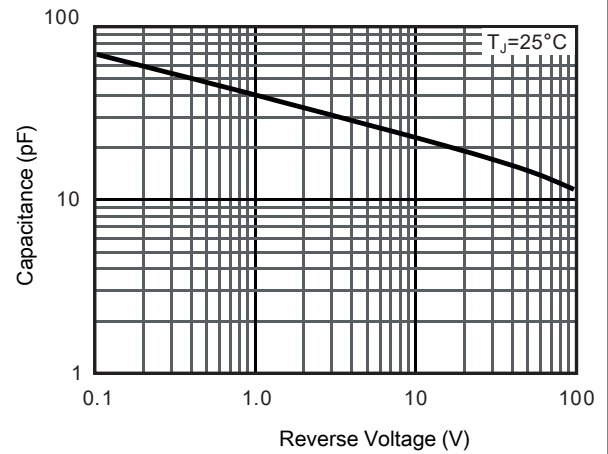
Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. Mounted on glass epoxy PC board with 4×1.5"×1.5" ( 3.81×3.81 cm ) copper pad.

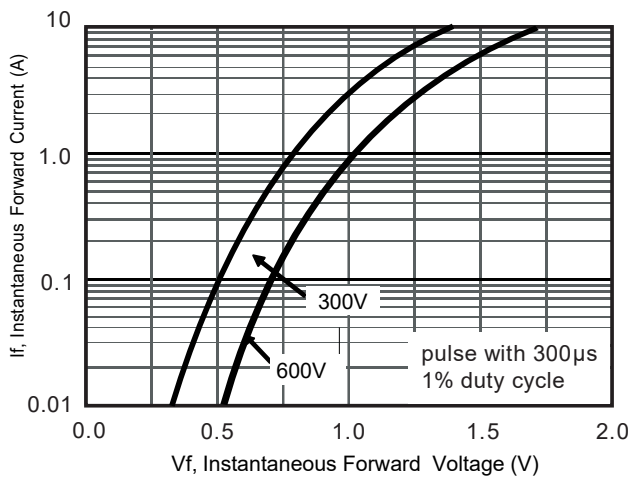
## RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)



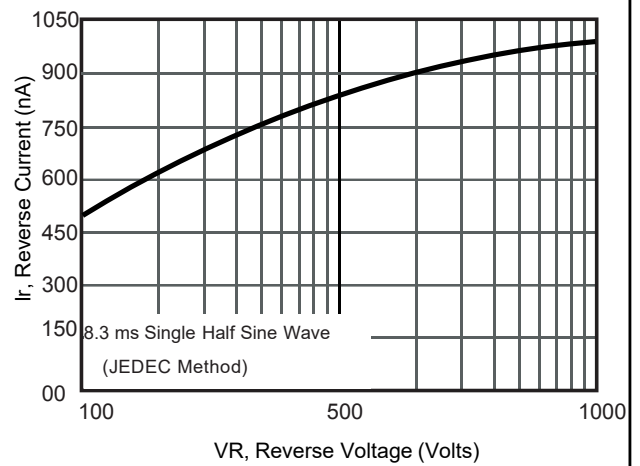
Current Derating, Case



Typical Junction Capacitance



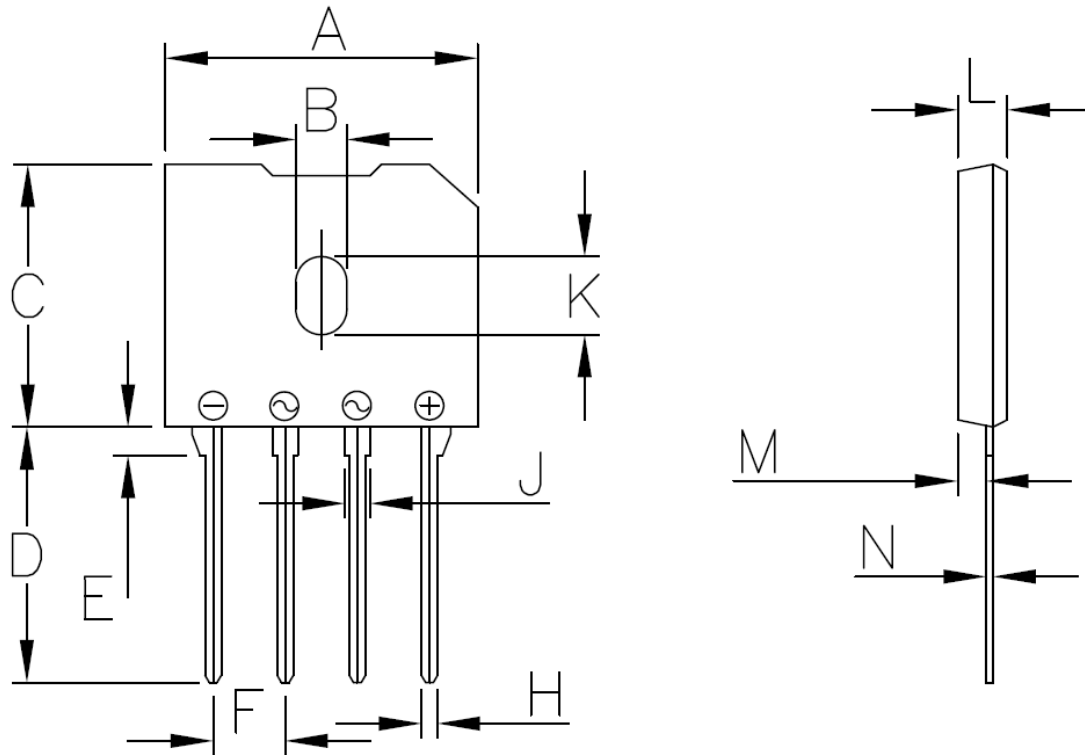
Typical Forward Voltage



Typical Reverse Current

## PACKAGE OUTLINE DIMENSIONS

Note:unit mm(inch)



GBU mechanical data: unit mm(inch)

Unit		A	B	C	D	E	F	H	J	K	L	M	N
mm	max	22.3	4.1	18.8	18.5	2.1	5.43	1.15	2.24	5.6	3.6	2.3	0.6
	min	21.7	3.5	18.2	17.5	1.5	4.73	0.85	1.64	5.1	3.2	1.8	0.4
inch	max	0.88	0.17	0.74	0.73	0.09	0.22	0.045	0.09	0.22	0.15	0.09	0.03
	min	0.85	0.13	0.71	0.68	0.06	0.18	0.033	0.06	0.20	0.12	0.07	0.015