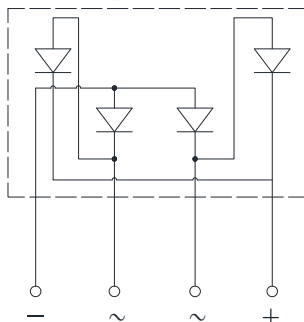
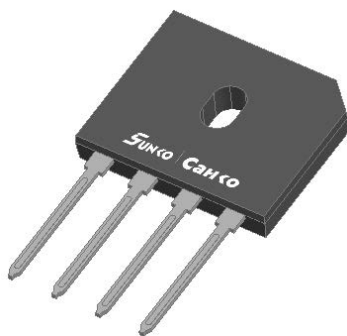


Fast Recovery Bridge Rectifier



Features

- UL recognition, file #E230084
- Glass passivated chip junction
- Ideal for printed circuit boards
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

General purpose use in AC/DC bridge full wave rectification for monitor, TV, printer, power supply, switching mode power supply, adapter, audio equipment, and home appliances applications.

Mechanical Data

- **Package:** GBU
Molding compound meets UL 94 V-0 flammability rating, -
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

■Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	RGBU1010
Device marking code				RGBU1010
Maximum Repetitive Peak Reverse Voltage		VRRM	V	1000
Maximum RMS Voltage		VRMS	V	700
Maximum DC blocking Voltage		VDC	V	1000
Average rectified output current @60Hz sine wave, R-load	With heatsink Tc =110℃	IO	A	10
	Without heatsink Ta =25℃			3.0
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃		IFSM	A	175
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃				350
Current squared time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode		I²t	A²S	127
Storage temperature		Tstg	℃	-55 ~ +150
Junction temperature		Tj	℃	-55 ~ +150
Dielectric strength @ Terminals to case, AC 1 minute		Vdis	KV	2.5
Mounting torque @Recommend torque: 5kg·cm		Tor	kg·cm	8

■Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	RGBU1010
Maximum reverse recovery time	tr	ns	If=0.5A, Ir=1.0A, Ir=0.25A	500
Maximum instantaneous forward voltage drop per diode	VF	V	IFM=5.0A	1.3
Maximum DC reverse current at rated DC blocking voltage per diode	IR	μA	Tj =25°C	5
			Tj =125°C	100
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	48

RGBU1010

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

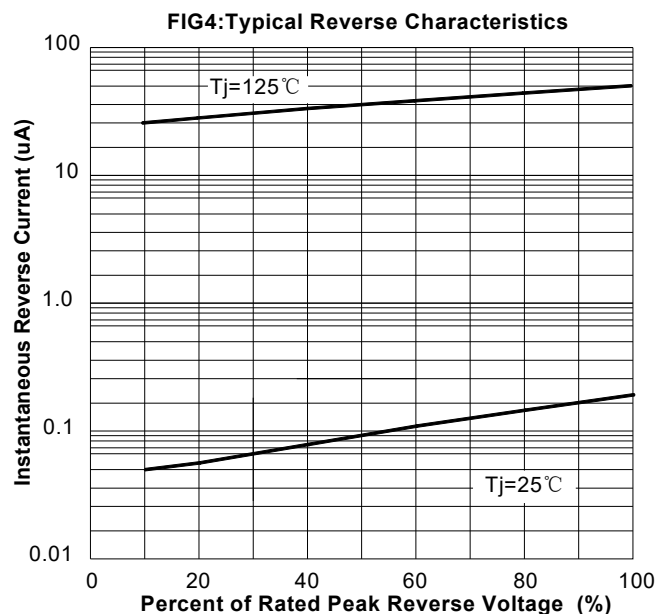
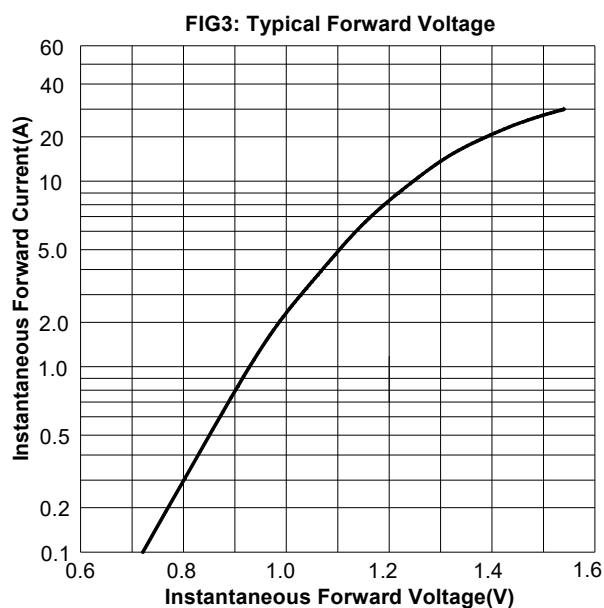
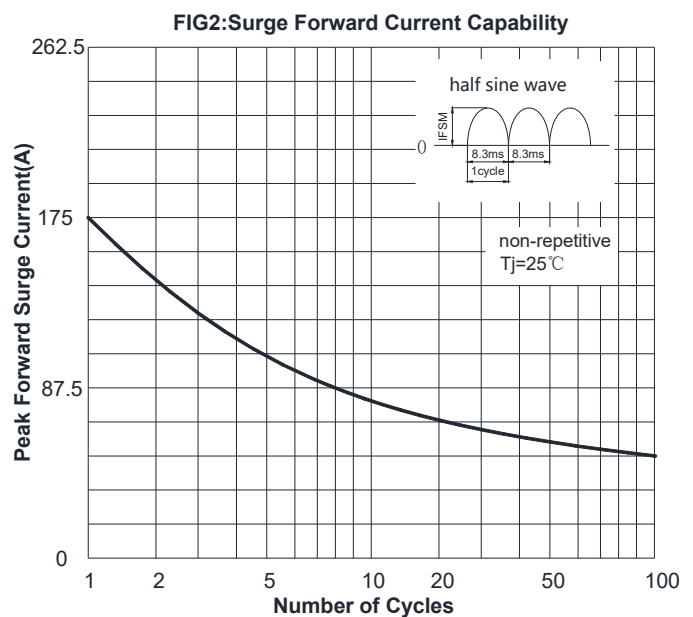
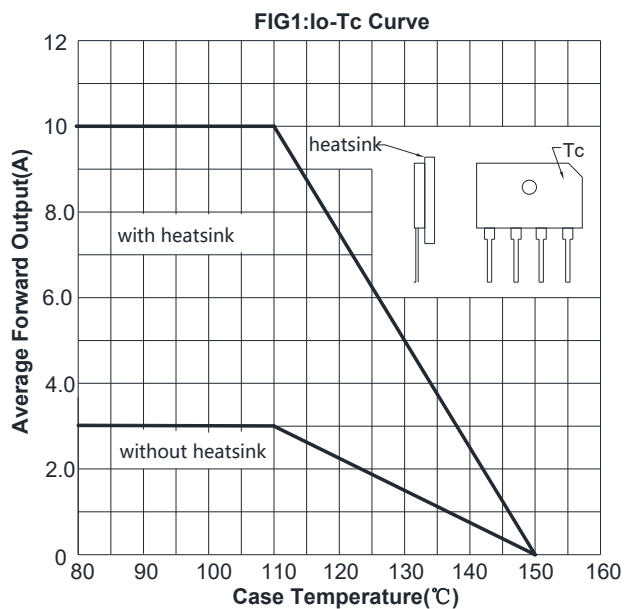
PARAMETER		SYMBOL	UNIT	RGBU1010
Thermal Resistance	Between junction and ambient, Without heatsink	R _{θJ-A}	°C/W	25.0
	Between junction and case, With heatsink	R _{θJ-C}		1.5

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
RGBU1010	B1	Approximate 3.96	20	1000	2000	TUBE

■ Characteristics (Typical)



The circuit diagram shows a 50 Ω noninductive resistor in series with a 1 Ω noninductive resistor. A diode (DUT) is connected in parallel with the 1 Ω resistor. The circuit is driven by a pulse generator (NOTE 2) with a 50 Ω source impedance. The output is measured across the 1 Ω resistor using an oscilloscope (NOTE 1). The oscilloscope trace shows a square wave pulse with a rise time of 7 ns and a fall time of 10 ns. The pulse amplitude is 1.0 A. The time base is set to 5/10 ns/cm, and the vertical scale is 1.0 A/cm.

Technical drawing of a GBU (General Purpose Unit) showing front and side views with dimensions A through M.

Front View Dimensions:

- A: Overall width
- D: Width of the central circular feature
- B: Overall height
- F: Height of the central circular feature
- E: Height of the lower section
- G: Height of the lower section (from the bottom of the main body to the top of the lower section)
- H: Width of the lower section
- I: Width of the lower section (from the centerline to the edge)
- J: Width of the lower section (from the centerline to the edge)
- C: Overall height (from the bottom of the main body to the top of the lower section)
- AC: Label on the front face

Side View Dimensions:

- K: Width of the upper section
- L: Width of the lower section
- M: Width of the lower section (from the centerline to the edge)

Dimensions in millimeters

GBU		
Dim	Min	Max
A	21.80	22.30
B	18.30	18.80
C	17.50	18.00
D	3.30	3.90
E	7.10	7.50
F	5.50	5.90
G	1.91	2.54
H	2.06	2.54
I	1.02	1.27
J	4.83	5.33
K	3.30	3.56
L	2.40	2.66
M	0.46	0.56

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