

RGBU6005 THRU RGBU610

6.0 Amp Glass Passivated Bridge Rectifiers

Features

- Glass passivated chip
- Low forward voltage drop
- Ideal for printed circuit board
- High surge current capability

Mechanical Data

- Polarity: Symbol marked on body
- Mounting position: Any

Applications

- General purpose use in AC/DC bridge full wave rectification, for SMPS, lighting ballaster, adapter, etc.

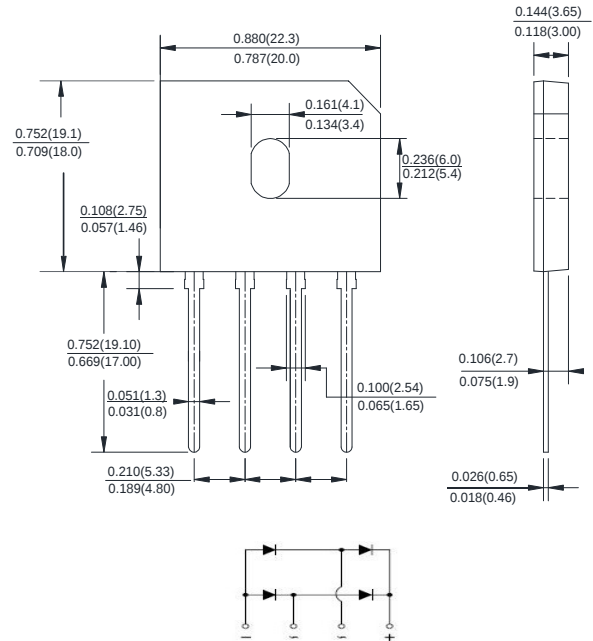
Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

GBU



Dimensions in inches and (millimeters)

Characteristics	Symbol	RGBU6005	RGBU601	RGBU602	RGBU604	RGBU606	RGBU608	RGBU610	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward (with heatsink Note 2) Rectified Current @ $T_c=100^{\circ}C$ (without heatsink)	$I_{(AV)}$	6.0							A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I_{FSM}	150							A
I^2t Rating for Fusing ($t<8.3mS$)	I^2t	93.4							A ² s
Maximum Reverse Recovery Time	T_{RR}	500							ns
Peak Forward Voltage Per Diode at 3A DC	V_F	0.95							V
Peak Forward Voltage per Diode at 6A DC	V_F	1.3							V
Maximum DC Reverse Current at Rated @ $T_J=25^{\circ}C$	I_R	5.0							μA
DC Blocking Voltage per Diode @ $T_J=125^{\circ}C$		500							
Typical Junction Capacitance Per Diode (Note1)	C_J	45							pF
Typical Thermal Resistance to Ambient (without heatsink)	$R_{\theta JA}$	27							$^{\circ}C/W$
Typical Thermal Resistance to case (with heatsink (Note2))	$R_{\theta JC}$	2.2							$^{\circ}C/W$
Typical Thermal Resistance to lead (without heatsink)	$R_{\theta JL}$	4.5							$^{\circ}C/W$
Operating Junction Temperature Range	T_J	-55 to +150							$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to +150							$^{\circ}C$

Notes: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

2.Device mounted on 50mm*50mm*1.6mm Cu plate heatsink.

Rating and Characteristic Curves

Fig. 1 - Forward Current Derating Curve

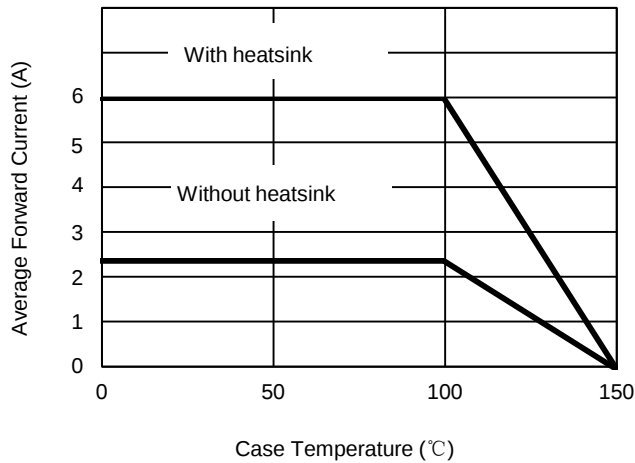


Fig. 2 - Maximum Non-Repetitive Surge Current

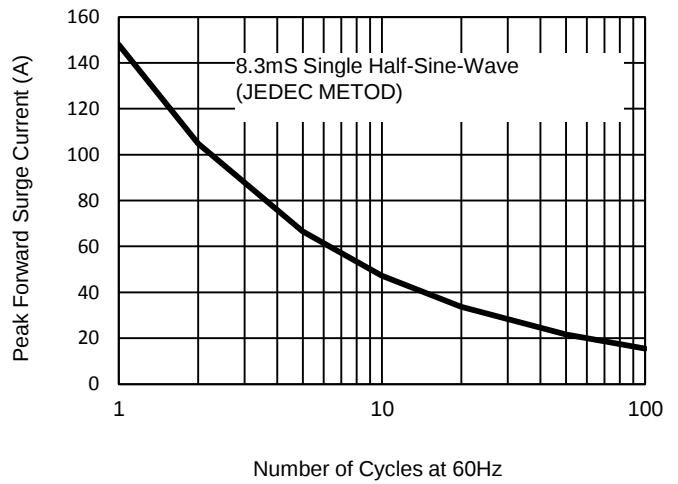


Fig. 3 - Typical Reverse Characteristics

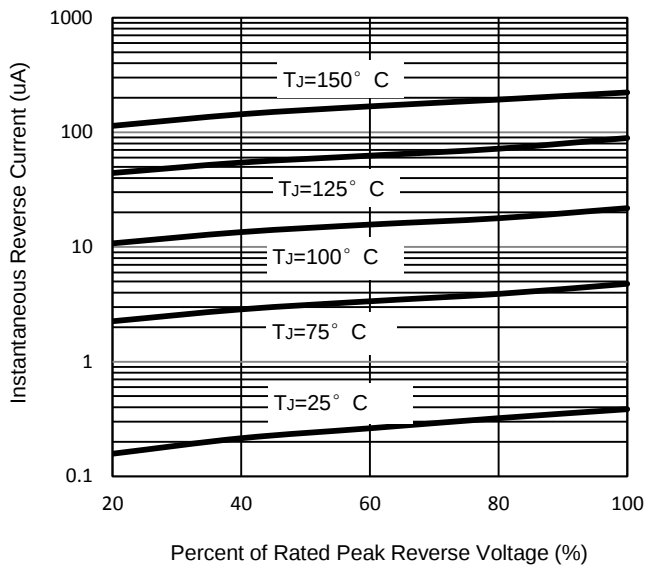


Fig. 4 - Typical Forward Characteristics

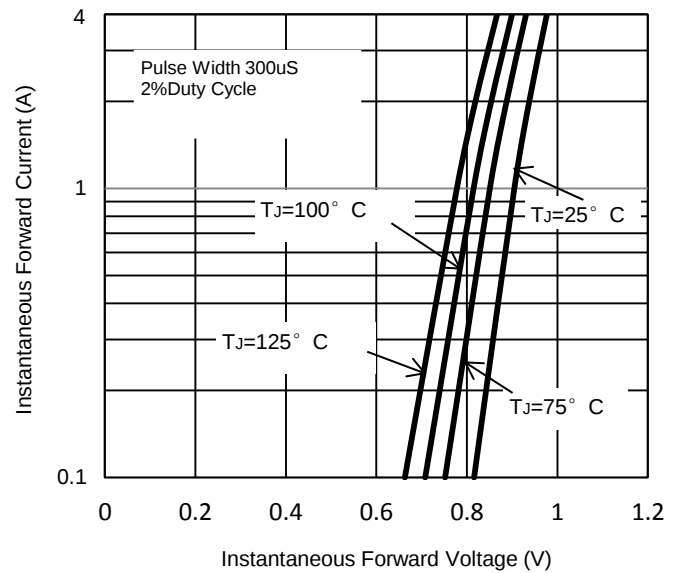


Fig. 5 - Typical Junction Capacitance

