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GBU15005 THRU GBU1510

Glass Passivated Bridge Rectifiers

Reverse Voltage - 50 to 1000 Volts
Forward Current - 15 Amperes

Features

- Glass passivated chip
- Low forward voltage drop
- Ideal for printed circuit board
- High surge current capability
- Meet UL flammability classification 94V-0

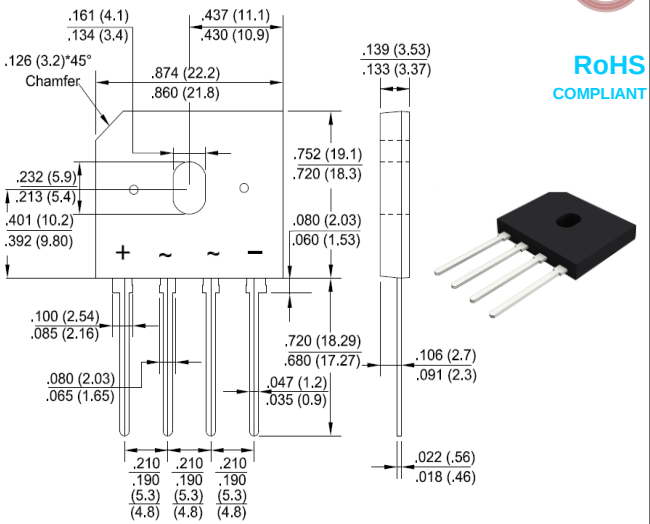
Mechanical Data

- 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.

GBU



Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristics	Symbol	GBU 15005	GBU 1501	GBU 1502	GBU 1504	GBU 1506	GBU 1508	GBU 1510	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 Rectified Current (with heatsink Note 2) '@ TC=100℃ (without heatsink)	$I_{(AV)}$	15.0 3.2							A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I_{FSM}	240							A
I^2t Rating for Fusing (t<8.3mS)	I^2t	239							A^2s
Peak Forward Voltage per Diode at 7.5A DC	V_F	1.0							V
Maximum DC Reverse Current at Rated @T_J=25℃ DC Blocking Voltage per Diode @T_J=125℃	I_R	5.0 500							μA
Typical Junction Capacitance per Diode (Note1)	C_J	70							pF
Typical Thermal Resistance to Ambient (Note2) Typical Thermal Resistance to case (Note2) Typical Thermal Resistance to lead (Note2)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	8 2 1.5							℃/W
Operating Junction Temperature Range	T_J	-55 to +150							℃
Storage Temperature Range	T_{STG}	-55 to +150							℃

Notes: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
2.Device mounted on 100mm*100mm*1.6mm Cu plate heatsink.
3.The typical data above is for reference only

Fig. 1 - Forward Current Derating Curve

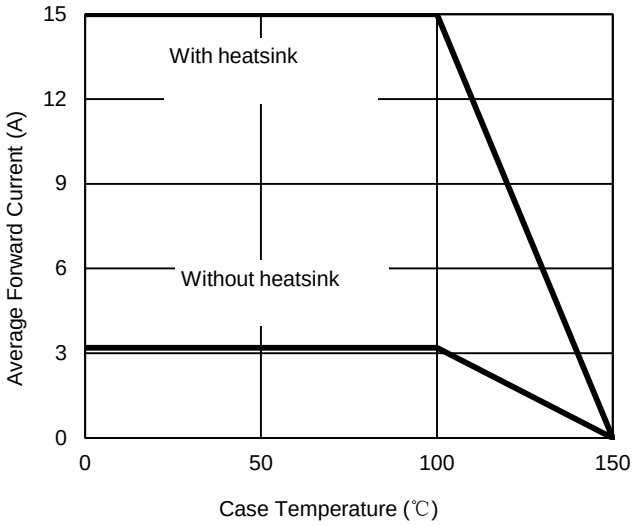


Fig. 2 - Maximum Non-Repetitive Surge Current

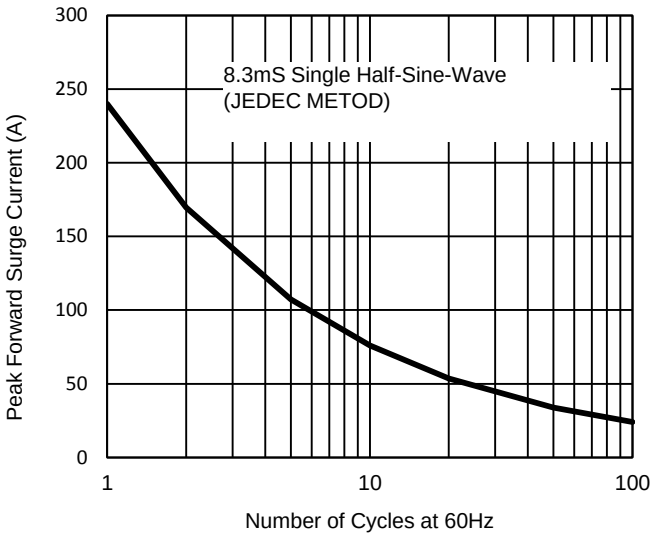


Fig. 3 - Typical Reverse Characteristics

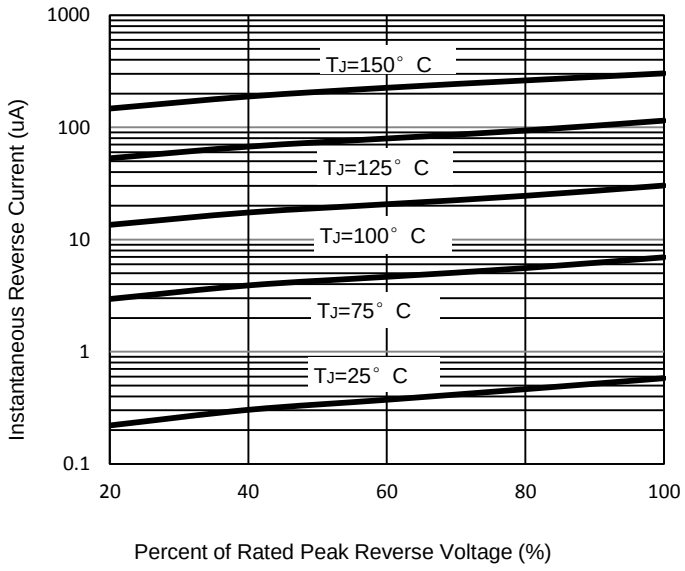
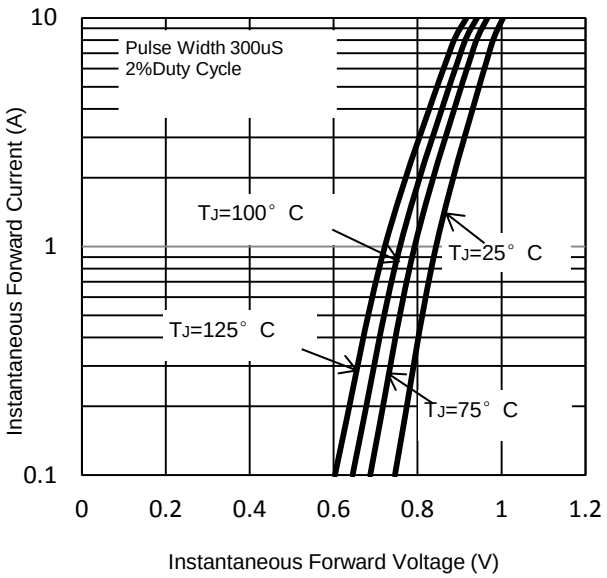


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.

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