SEMICONDUCTOR

GBU2501 THRU GBU2510

GENERAL PURPOSE BRIDGE RECTIFIER
Reverse Voltage:50 to 1000Volts
Forward Current:25.0 Amps

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- High current capability
- Low forward voltage drop
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU

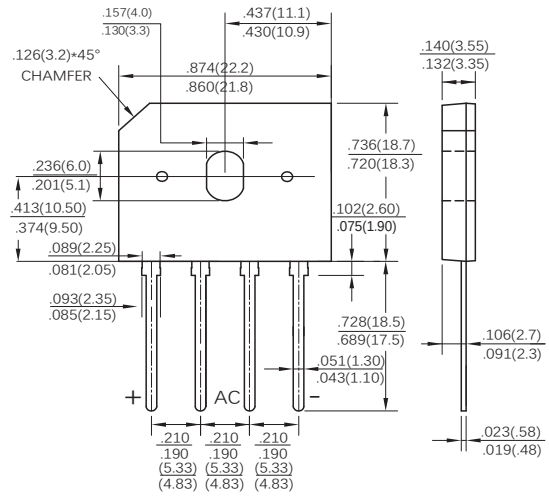
MECHANICAL DATA

- Case: GBU molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750,method 2026
- Mounting Position: Any

TYPICAL APPLICATIONS

Used in AC/DC bridge full wave rectification for SMPS, lighting ballaster, adapter, charger, home appliances, office equipment, and telecommunication applications.

GBU



Back View

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified. Single phase ,half wave , resistive or inductive load. For capacitive load,derate current by 20%.)

Parameters	Symbol	GBU2501	GBU2502	GBU2504	GBU2506	GBU2508	GBU2510	Units
Maximum Reverse Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current, (See Fig 2)	$I_{F(AV)}$	25.0						Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	300						Amps
Rating for Fusing (t =8.3ms)	I^2t	374						A^2S
Maximum Instantaneous Forward Voltage at 12.5A DC	V_F	1.00						Volts
Maximum DC Reverse Current at rated DC blocking voltage T_J=25℃	I_R	5						μA
Maximum DC Reverse Current at rated DC blocking voltage T_J=125℃	I_R	100						μA
Typical Junction Capacitance (Note 1)	C_J	110						pF
Typical thermal resistance (Note 2) Junction-Ambient	$R_{\theta JA}$	25						℃/W
Typical thermal resistance (Note 2) Junction-Case	$R_{\theta JC}$	1.0						℃/W
Operating temperature range	T_J	-55 to +150						°C
Storge temperature range	T_{STG}	-55 to +150						°C

NOTE: 1.Measured at 1MHz and applied reverse voltage of 4.0 Volts.
2 Unit mounted on 75mm x 45mm x 5.5mm copper plate heatsink

FIG.1-MAXIMUM FORWARD SURGE CURRENT

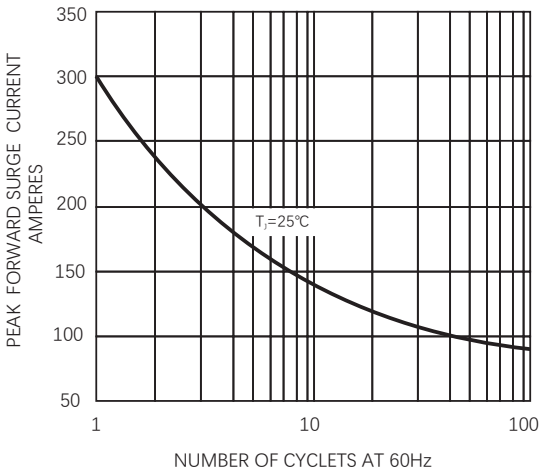


FIG.2 FORWARD CURRENT DERATING CURVE

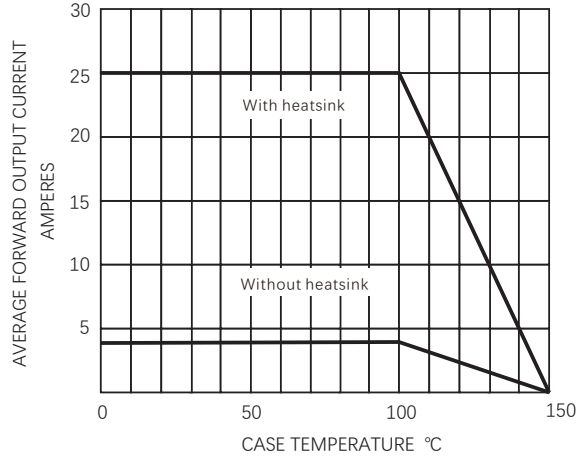


FIG. 3-TYPICAL FORWARD CHARACTERISTICS

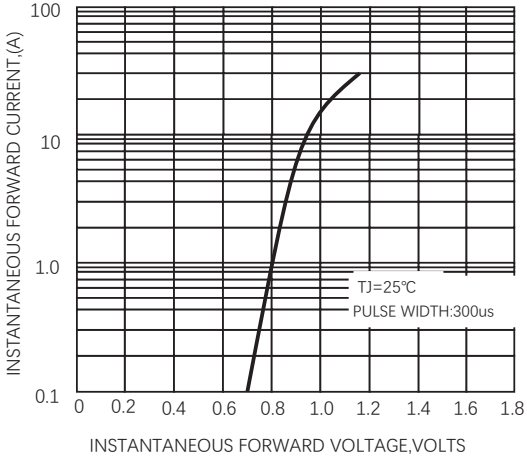
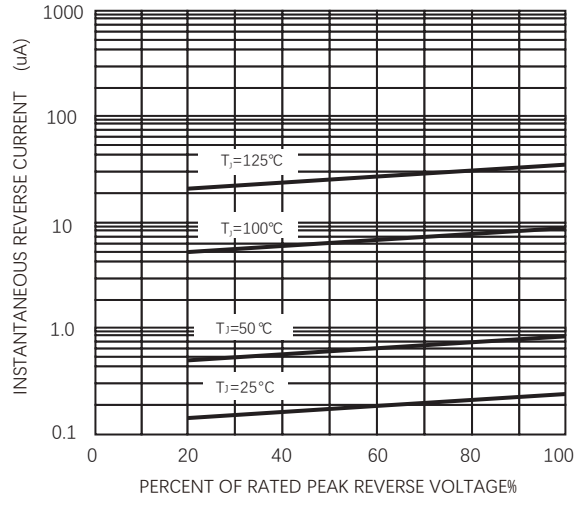


FIG.4 -TYPICAL REVERSE CHARACTERISTICS



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