SEMICONDUCTOR

GBU601 THRU GBU610

GENERAL PURPOSE BRIDGE RECTIFIER
Reverse Voltage:50 to 1000Volts
Forward Current:6.0 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

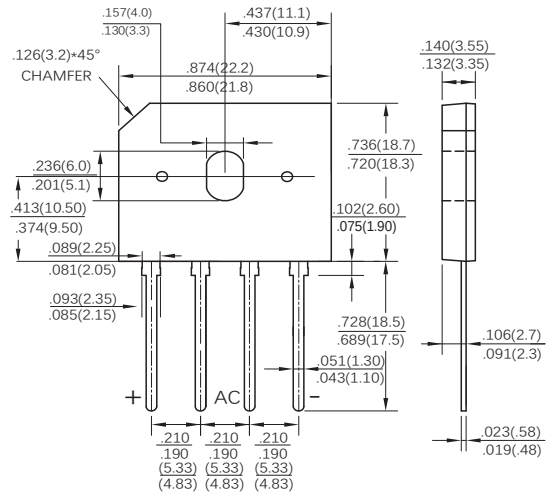
MECHANICAL DATA

- 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	GBU601	GBU602	GBU604	GBU606	GBU608	GBU610	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)		$I_{F(AV)}$	6. 0						Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	175						Amps
Rating for Fusing (t =8.3ms)		I^2t	127						A^2S
Maximum Instantaneous Forward Voltage at 3.0A DC		V_F	1.00						Volts
Maximum DC Reverse Current at rated DC blocking voltage	T_A=25℃	I_R	5						μA
	T_A=125℃		100						μA
Typical Junction Capacitance (Note 1)		C_J	50						pF
Typical thermal resistance (Note 2)	Junction-Ambient	$R_{\theta JA}$	25						℃/W
	Junction-Case	$R_{\theta JC}$	2.2						
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 50mm x 50mm x 1.6mm copper plate heatsink

FLG.1-MAXIMUM FORWARD SURGE CURRENT

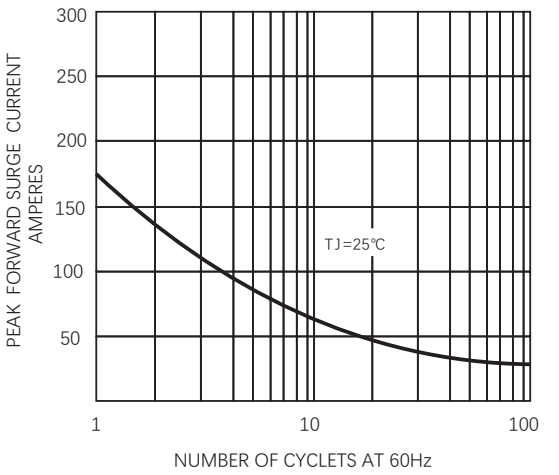


FIG.2 FORWARD CURRENT DERATING CURVE

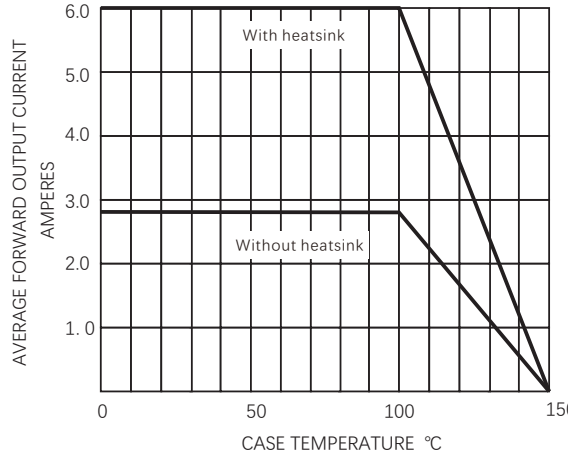


FIG. 3-TYPICAL FORWARD CHARACTERISTICS

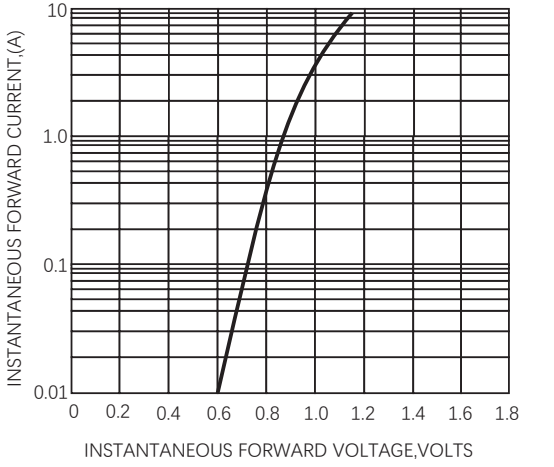
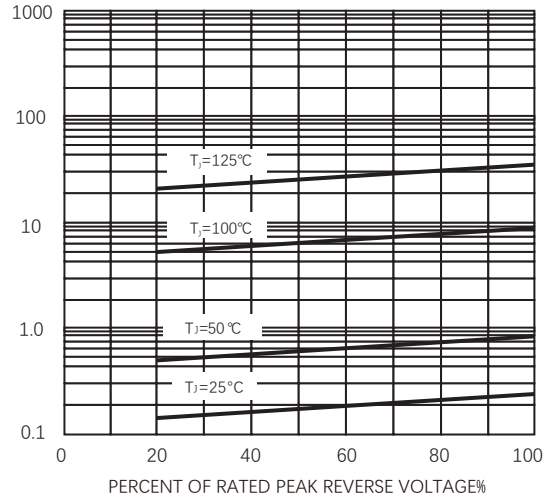


FIG.4 -TYPICAL REVERSE CHARACTERISTICS



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