

GBU6005 THRU GBU610

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIERS

Reverse Voltage – 50 to 1000 Volts

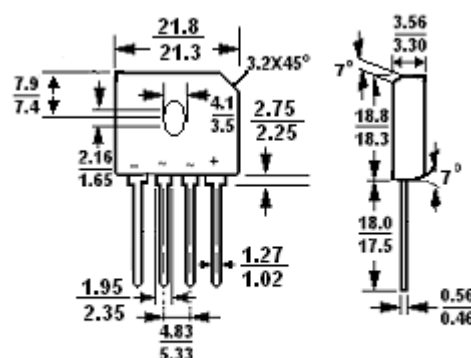
Forward Current – 6.0 Amperes

Features

- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- Ideal for printed circuit boards
- Glass passivated chip junction
- Reliable low cost construction utilizing molded plastic technique

Mechanical Data

- **Case:** Molded plastic GBU
- **Terminals:** leads solderable per MIL-STD-202 Method 208 guaranteed
- **Mounting Position:** Any



Dimensions in mm

Absolute Maximum Ratings and Characteristics

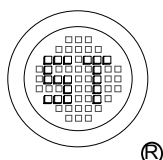
Rating at 25°C ambient temperature unless otherwise specified. Single-phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

	Symbols	GBU 6005	GBU 601	GBU 602	GBU 604	GBU 606	GBU 608	GBU 610	Units
Maximum recurrent 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 at T _C = 100°C (Note 1), (Note 2)	I _{F(AV)}	6							A
Peak forward surge current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	175							A
Maximum forward voltage at 3.0A DC and 25°C	V _F	1							V
Maximum reverse current at T _A = 25°C at rated DC blocking voltage T _A = 125°C	I _R	5 500							μA
Typical junction capacitance (Note 3)	C _J	211					94		pF
Typical thermal resistance (Note 1),(Note 2)	R _{θJA}	7.4							°C/W
Typical thermal resistance (Note 1),(Note 2)	R _{θJC}	2.2							°C/W
Operating and storage temperature range	T _J , T _S	-55 to +150							°C

Notes: (1). Units case mounted on 2.6x1.4x0.06" thick (6.5x3.5x0.15 cm) Al. plate heatsink..

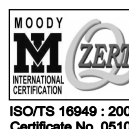
(2). Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screws.

(3). Measured at 1MHz and applied reverse voltage of 4.0 VDC.



SEMTECH ELECTRONICS LTD.

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RATINGS AND CHARACTERISTIC CURVES

