SEMICONDUCTOR

DATA SHEET

GBU6A THRU GBU6M

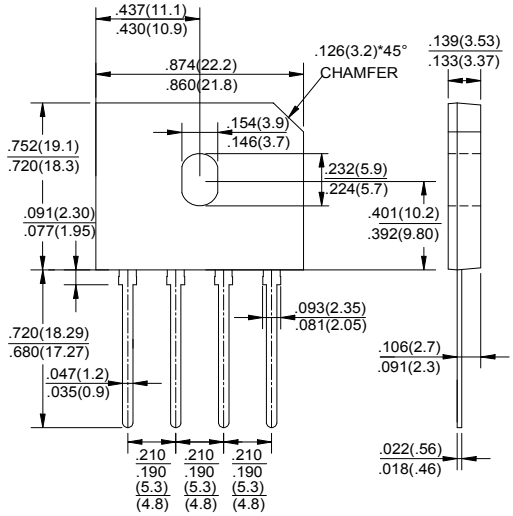
GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 6.0 Amperes

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High case dielectric strength of 1500 VRMS
- Ideal for printed circuit boards
- Glass passivated chip junctions
- High surge overload rating
- High temperature soldering guaranteed: 260°C/10 seconds, 0.375" (9.5mm) lead length, 5lbs. (2.3kg) tension
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

GBU Unit:inch(mm)



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: Molded plastic body over passivated chip
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026
- Mounting Position: Any (NOTE 2)
- Mounting Torque: 5 in. - lb. max.
- Weight: 0.15 ounce, 4.0 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25℃ambient temperature unless otherwise specified

	SYMBOLS	GBU 6A	GBU 6B	GBU 6D	GBU 6G	GBU 6J	GBU 6K	GBU 6M	UNITS
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified output current at TC=100°C (NOTE 1, 2)	I(AV)	6.0							Amps
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)TJ=150°C	IFSM	175.0							Amps
Rating for fusing (t<8.3ms)	I2t	127.0							A2sec
Maximum instantaneous forward voltage drop per leg at 3.0A	VF	1.0							Volts
Maximum DC reverse current at TA=25°C rated DC blocking voltage per leg TA=125°C	IR	5.0 500							uA
Typical junction capacitance per leg (NOTE 3)	Cj	211.0				94.0			pF
Typical thermal resistance per leg (NOTE 1,2)	RQJA RQJC	7.4 2.2							℃/W
Operating junction and storage temperature range	TJ, TSTG	-55 to +150							℃

NOTES:

(1) Units case mounted on 2.6 x 1.4 x 0.06" thick (6.5 x 3.5 x 0.15 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 1.0 MHZ and applied reverse voltage of 4.0 Volts

DEVICE CHARACTERISTICS

GBU6A THRU GBU6M

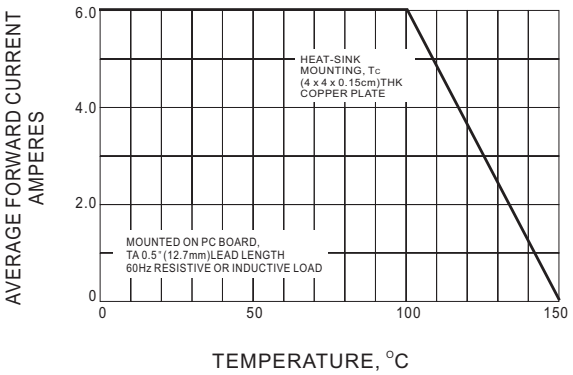


Fig.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

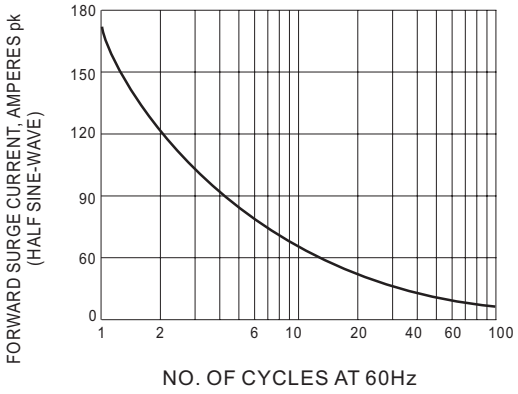


Fig.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

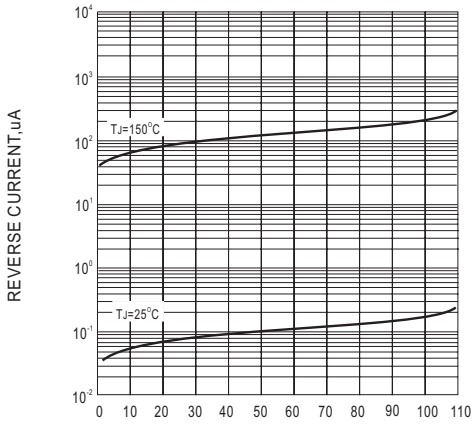


Fig.3 - TYPICAL REVERSE CHARACTERISTICS

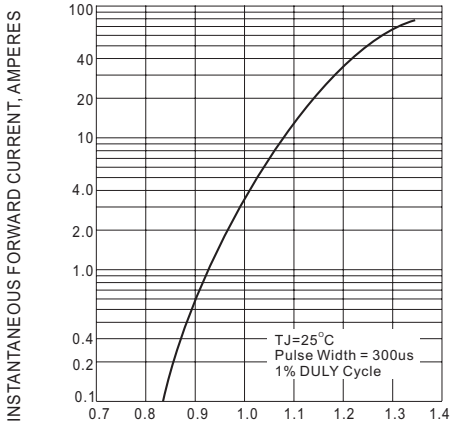


Fig.4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT

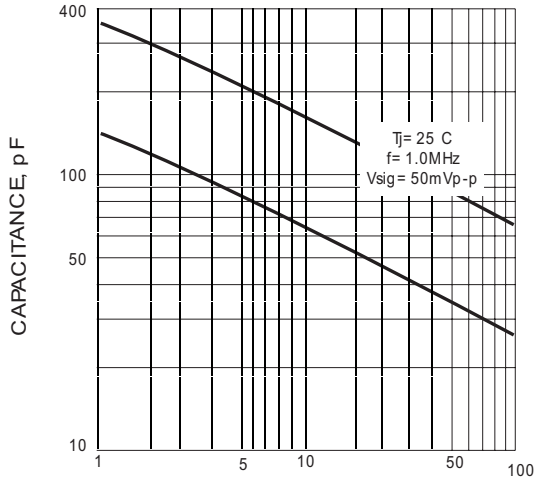


Fig.5- TYPICL JUNCTION CAPACITANCE PERELEMENT