

GBU15A THRU GBU15M

GLASS PASSIVATED SINGLE PHASE RECTIFIER

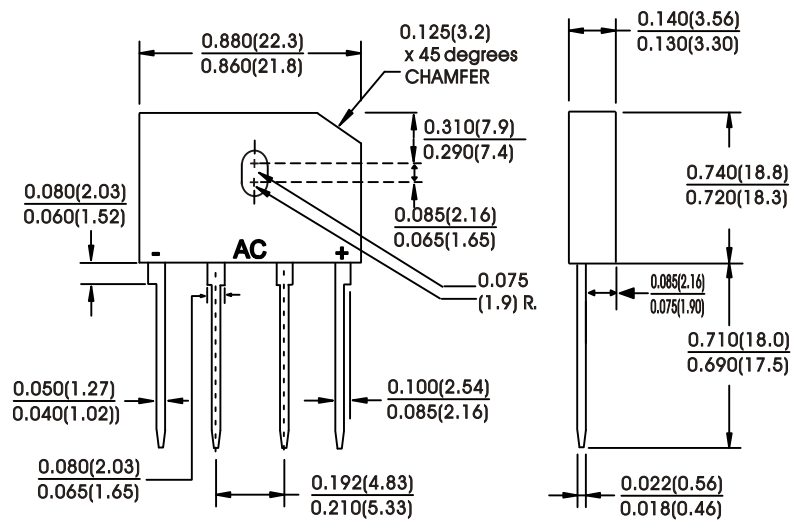
GBU

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 junction
- High surge overload rating
- High temperature soldering guaranteed:
260°C/10 seconds 0.375" (9.5mm) lead Length

MECHANICAL DATA

Case: Molded plastic body over passivated junctions
Terminals: Plated leads solderable per MIL-STD-750, Method 2026
Mounting Position: Any



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Characteristic	Symbol	GBU 15A	GBU 15B	GBU 15D	GBU 15G	GBU 15J	GBU 15K	GBU 15M	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at $T_c=100^\circ\text{C}$ (NOTE 1)	I_o	15.0							Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	240.0							Amps
Maximum instantaneous forward voltage drop per leg at 15.0A (Per leg)	V_F	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage (Per leg) $T_a=25^\circ\text{C}$ $T_a=125^\circ\text{C}$	I_R	5.0 500							μA
Typical junction (Per leg)(NOTE 2)	C_J	80.0							PF
Typical thermal resistance (Per leg)(NOTE 1)	$R_{th\text{ JC}}$	2.2							$^\circ\text{C/W}$
Operating Junction and storage temperature range	T_J, T_{stg}	-55 to +150							$^\circ\text{C}$

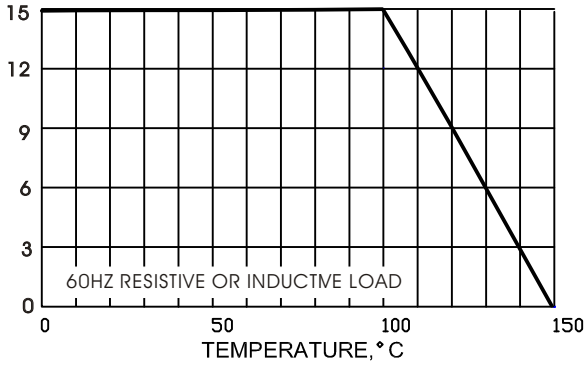
NOTES:

- (1) Device mounted on 100mm x 100mm x 1.6mm Cu plate heatsink
- (2) Measured at 1.0MHZ and applied reverse of 4.0Volts
- (3) Recommended mounted position is bolt to down on heatsink with silicone thermal compound for maximum heat transfer with #6 screws
- (4) Units mounted in free air, no heat on P.C.B. 0.5 x 0.5"(12X12mm)copper pads, 0.375"(9.5mm) lead length

RATINGS AND CHARACTERISTIC CURVES GBU15A THRU GBU15M

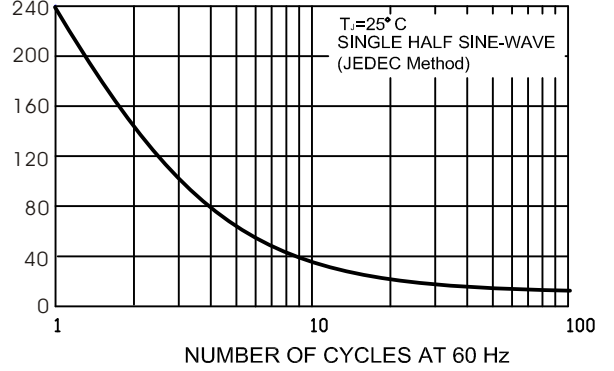
AVERAGE FORWARD OUTPUT CURRENT, AMPERES

FIG.1-DERATIVE CURVE FOR OUTPUT RECTIFIER CURRENT



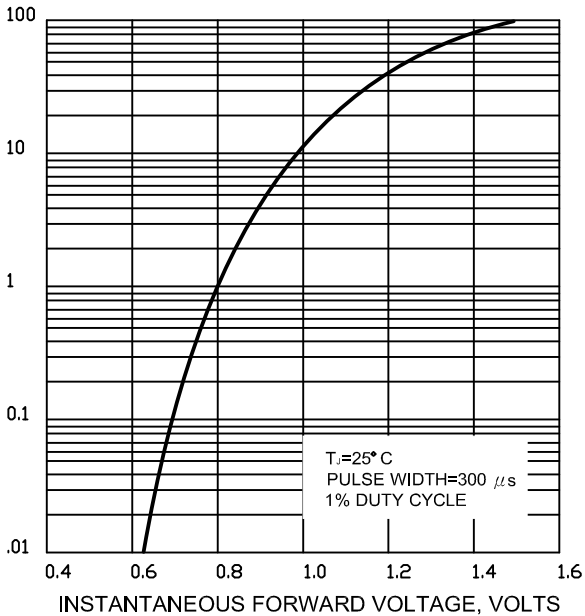
PEAK FORWARD SURGE CURRENT, AMPERES

FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG



INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG.3-TYPICAL FORWARD CHARACTERISTICS PER LEG



INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG.4-TYPICAL REVERSE CHARACTERISTICS PER LEG

