

GLASS PASSIVATED BRIDGE RECTIFIERS

**REVERSE VOLTAGE – 600Volts
FORWARD CURRENT – 15 Amperes**

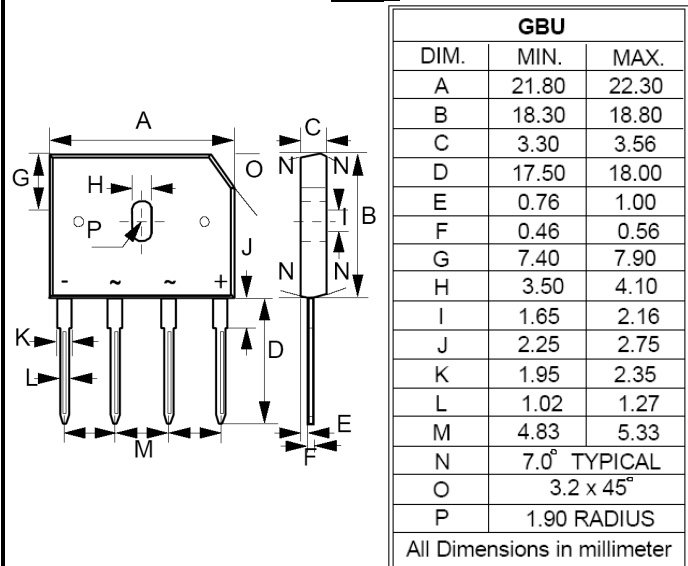
FEATURES

- Low forward voltage drop
- Ideal for printed circuit board
- High surge current capability
- UL recognition file # E95060

MECHANICAL DATA

- Case: GBU
- Case Material: Plastic material, UL flammability classification 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Lead free plating (Tin finish), Solderable per MIL-STD-202, Method 208
- Polarity indicator: As marked on the body
- Weight: 0.15 ounces, 4.0 grams
- Component in accordance to RoHs 2002/95/EC

GBU



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	GBU15L06			UNIT		
Device marking code	Note	GBU15L06			---		
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	600			V		
Average Rectified Output Current	I _{F(AV)}	With heatsink T _c =115°C	15	A			
		Without heatsink T _c =115°C	3.7				
Peak Forward Surge Current	I _{FSM}	@ T _j = 25 °C	200	A			
8.3ms single half sine-wave		@ T _j = 125°C	170				
Peak Forward Surge Current	I _{FSM}	@ T _j =25 °C	550	A			
1.0ms single half sine-wave		@ T _j =125°C	450				
I ² t Rating for fusing (3ms ≤ t ≤ 8.3ms)	I ² t	166			A ² S		
Storage temperature range	T _{STG}	-55 to +150			°C		
Operating junction temperature range	T _J	-40 to +150			°C		
PARAMETER	TEST CONDITIONS		SYMBOL	Min.	Typ.	Max.	UNIT
Breakdown voltage	I _R =10uA	T _j =25°C	V _B	600	---	---	V
Forward Voltage (1)	I _F =7.5A	T _j =25°C	V _F	---	0.86	0.90	V
Leakage Current	V _R =600V	T _j =25°C	I _R	---	---	10	uA
THERMAL CHARACTERISTIC			SYMBOL	Typical			UNIT
Typical Junction Capacitance per element (Note 1)			C _j	80			pF
Typical thermal resistance_Junction to Case (2)			R _{θJC}	1.3			°C/W
Typical thermal resistance_Junction to Lead (3)			R _{θJL}	3			°C/W

Note : (1) 300us Pulse Width, 2% Duty Cycle.
 (2) Thermal Resistance Junction to Case, device mounted on 200 x 200 x 2 mm copper plate.
 (3) Thermal Resistance Junction to Lead, device mounted on 200 x 200 x2 mm copper plate.

FIG.1- FORWARD CURRENT DERATING CURVE

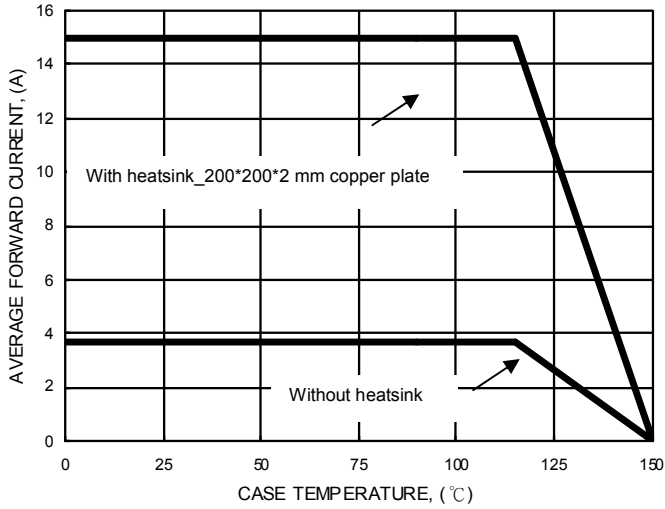


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

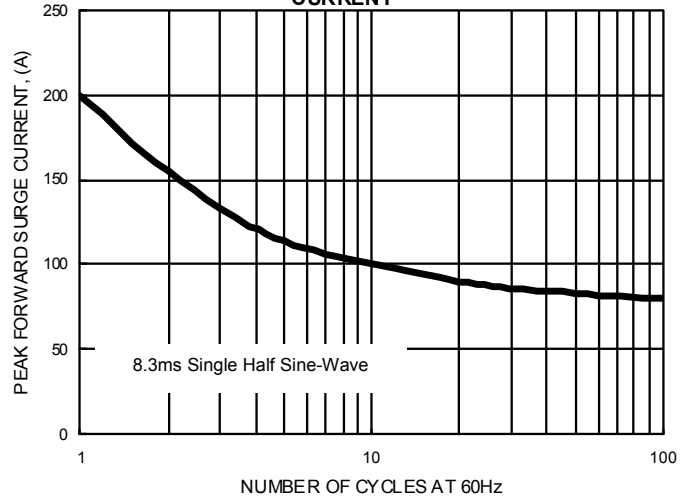


FIG.3- TYPICAL FORWARD CHARACTERISTICS

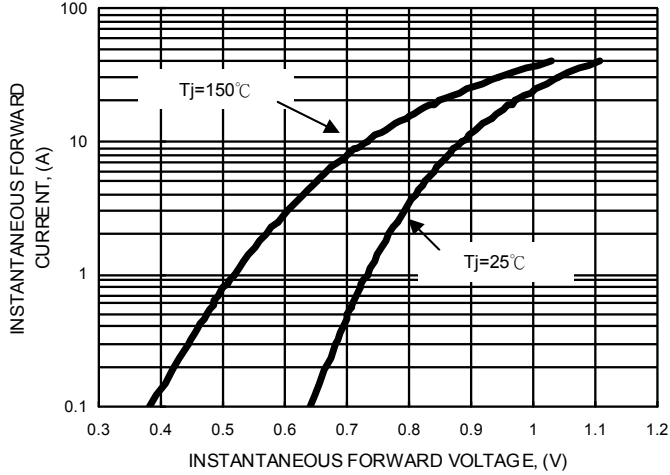


FIG.4- TYPICAL JUNCTION CAPACITANCE

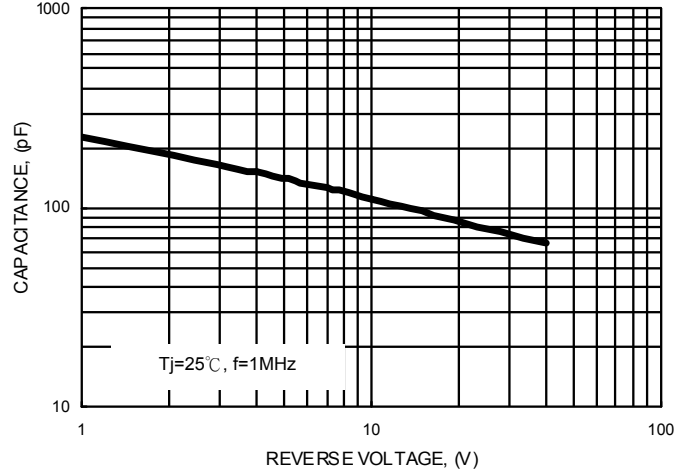


FIG.5- TYPICAL REVERSE CHARACTERISTICS

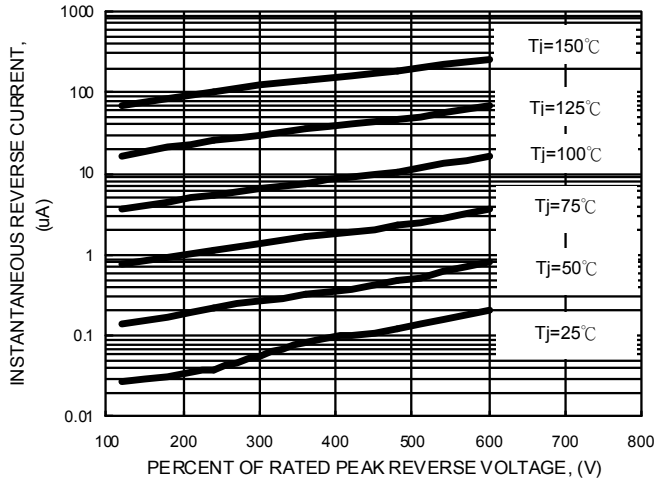


FIG.6- FORWARD POWER DISSIPATION

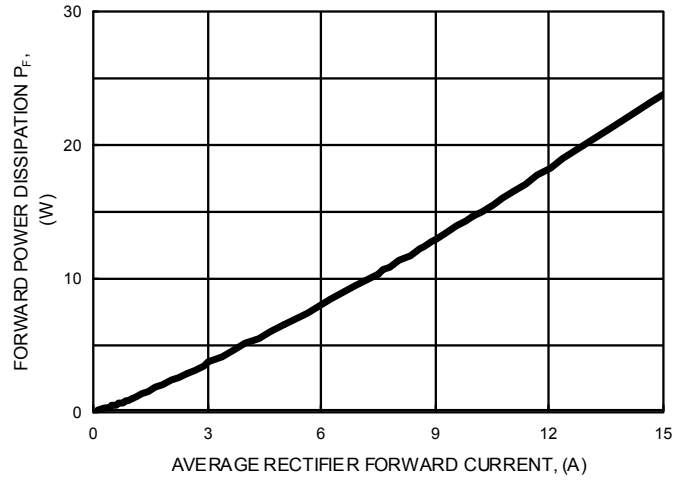
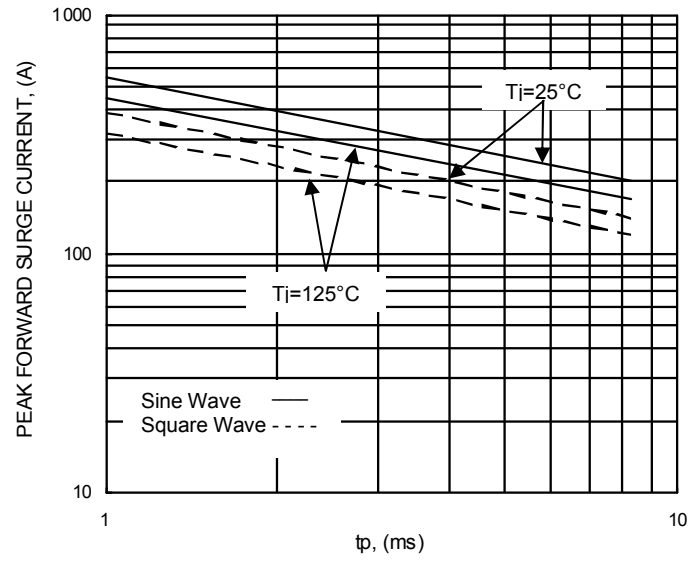


FIG.7_NON-REPETITIVE SURGE CURRENT



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