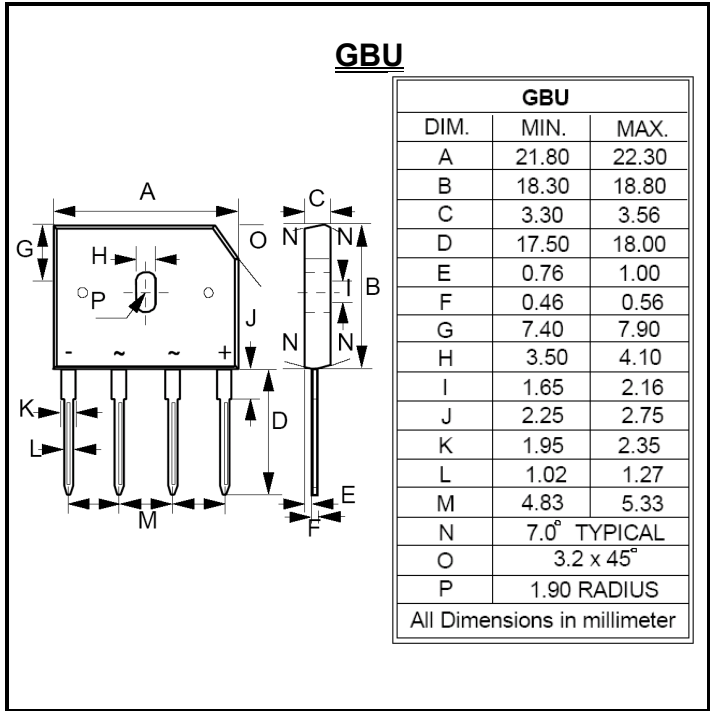


GLASS PASSIVATED BRIDGE RECTIFIERS

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



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)} | 15 3.7 | A |
| Peak Forward Surge Current | I _{FSM} | 200 | A |
| 8.3ms single half sine-wave | | 170 | |
| Peak Forward Surge Current | I _{FSM} | 550 | A |
| 1.0ms single half sine-wave | | 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 x 2 mm copper plate.

FIG.1- FORWARD CURRENT DERATING CURVE

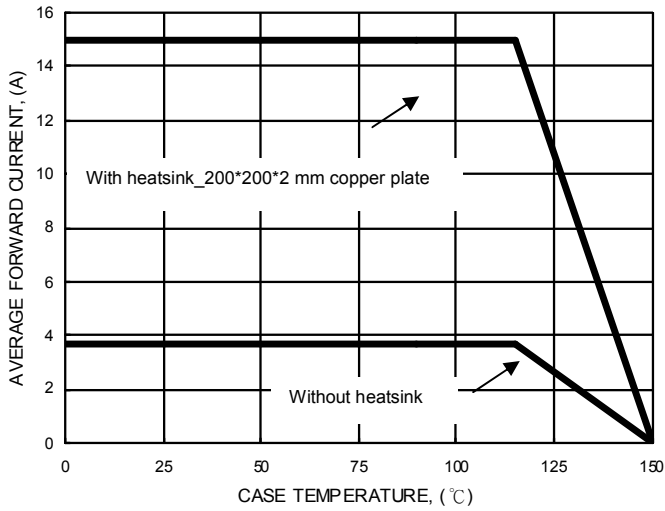


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

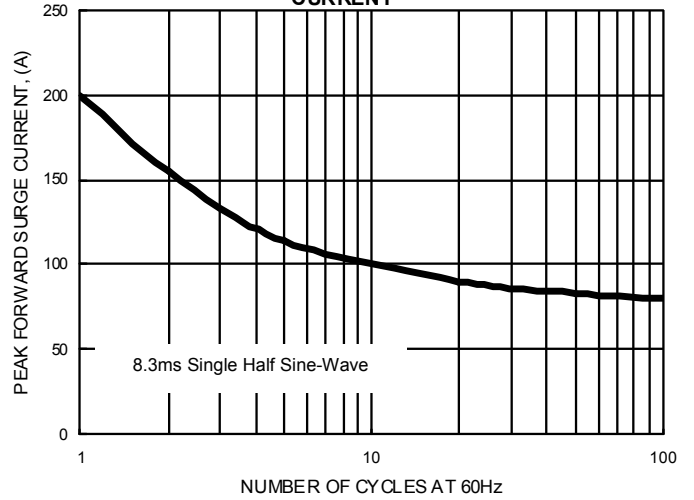


FIG.3- TYPICAL FORWARD CHARACTERISTICS

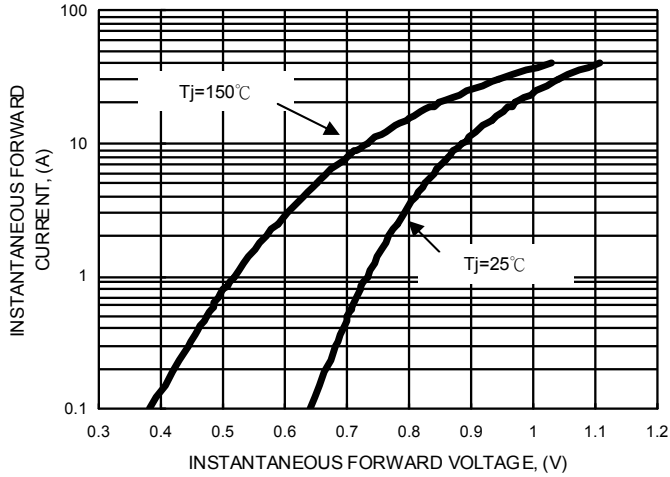


FIG.4- TYPICAL JUNCTION CAPACITANCE

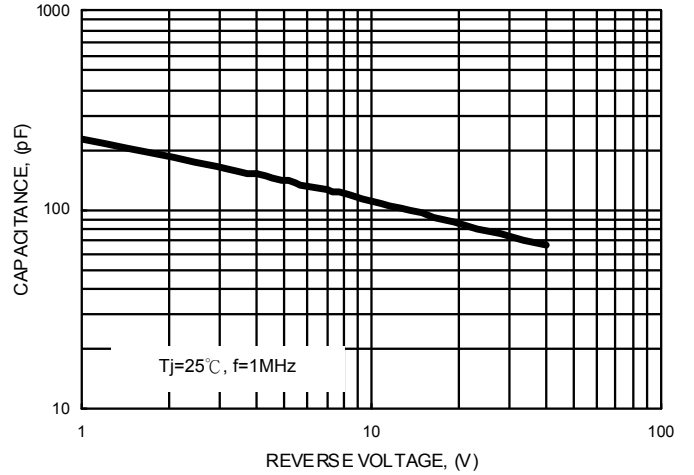


FIG.5- TYPICAL REVERSE CHARACTERISTICS

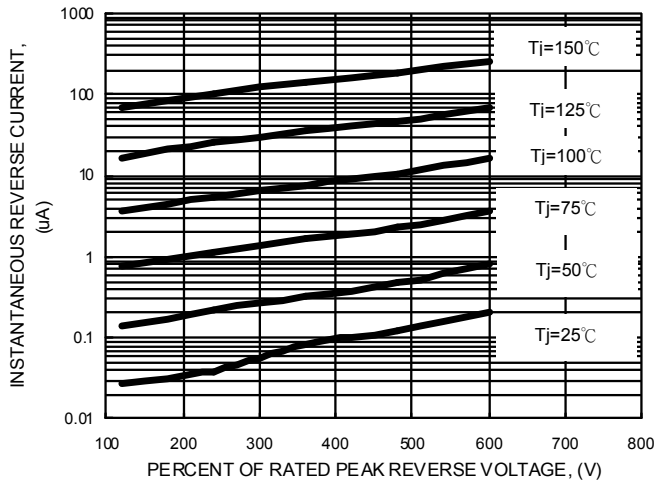


FIG.6- FORWARD POWER DISSIPATION

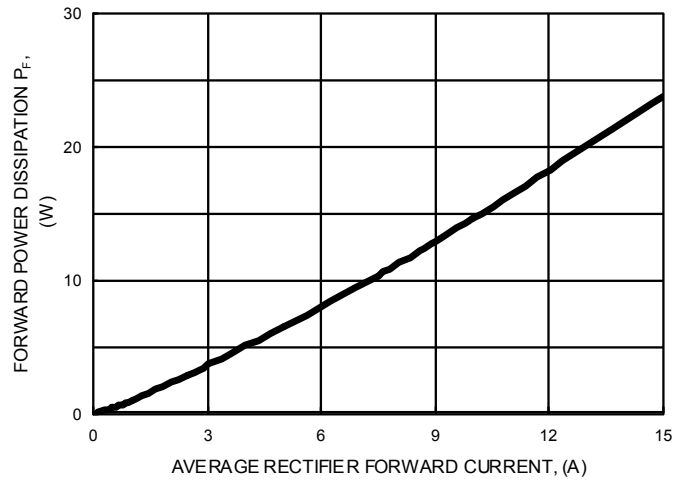
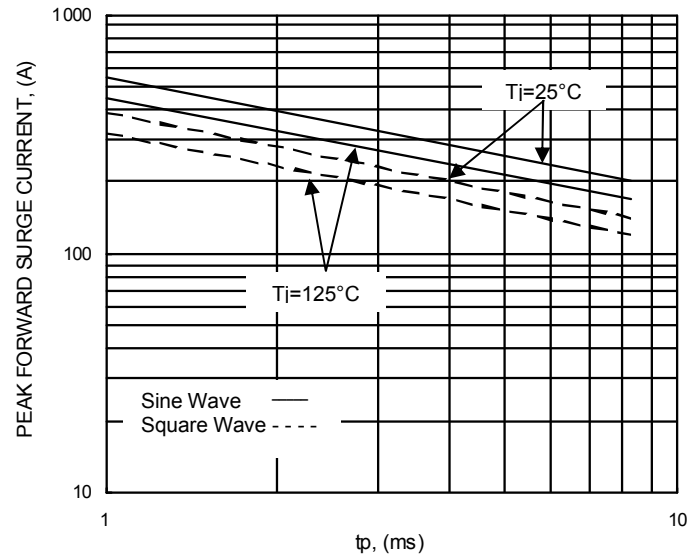


FIG.7_NON-REPETITIVE SURGE CURRENT



Important Notice and Disclaimer

LSC reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

LSC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does LSC assume any liability for application assistance or customer product design. LSC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of LSC.

LSC products are not authorized for use as critical components in life support devices or systems without express written approval of LSC.