

**HYPER-FAST
GLASS PASSIVATED RECTIFIER**

**REVERSE VOLTAGE – 600Volts
FORWARD CURRENT – 8.0 Ampere**

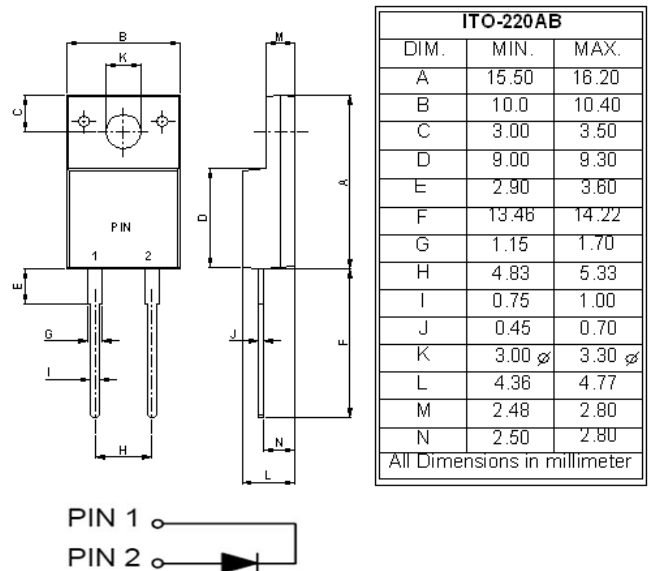
FEATURES

- Soft, Hyper fast switching capability
- Specially suited for critical mode Power Factor Corrections.
- High reliability and efficiency

MECHANICAL DATA

- Case: JEDEC ITO-220AC
- Case Material: Plastic material, UL flammability classification 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Lead Free Plating
- Polarity indicator: As marked on the body
- Weight: 0.06 ounces, 1.7 grams
- Component in accordance to RoHs 2002/95/EC
- Maximum mounting torque = 0.5 N.m (5.1 Kgf.cm)

ITO-220AC



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter | | | Symbol | LTTH806SDF | | Unit |
|---|---|---------------------------------------|-----------------|-------------|------|--------------|
| Maximum Repetitive Peak Reverse Voltage | | | V_{RRM} | 600 | | V |
| Average Rectified Output Current See FIG. 1 | | | I_F | 8.0 | | A |
| Forward Voltage (1) | $I_F=8.0A$ | $T_j=25^\circ C$ | V_F | 3.4 | | V |
| Reverse Leakage Current | $V_R=600V$ | $T_j=25^\circ C$ $T_j=125^\circ C$ | I_R | 15 200 | | μA |
| Reverse recovery time | $I_F=0.5A$ $I_{rr}=0.25A$ $I_R=1.0A$ | $T_j=25^\circ C$ | t_{rr} | 21 | | ns |
| Thermal characteristics (GBD) | | | Symbol | Value | | Unit |
| Non Repetitive Forward Surge Current | | $T_p=10ms$ | I_{FSM} | 60 | | A |
| Operation and Storage temperature range | | | T_J, T_{STG} | -55 to +175 | | $^\circ C$ |
| Typical thermal resistance_Junction to Case (2) | | | $R_{\theta JC}$ | 2.7 | | $^\circ C/W$ |
| Typical thermal resistance_Junction to Lead (2) | | | $R_{\theta JL}$ | 4.5 | | $^\circ C/W$ |
| Dynamic electrical characteristics (GBD) | | | Symbol | Typical | Max. | Unit |
| Reverse recovery time | $I_F=1A,$ $dI_F/dt=-200A/\mu s,$ $V_R=30V$ | $T_j=25^\circ C$ | t_{rr} | 12 | 18 | ns |
| Reverse recovery current | $I_F=8 A,$ $dI_F/dt=-200A/\mu s,$ $V =200V$ | $T_j=25^\circ C$ | I_{RM} | 1.8 | 2.2 | A |
| Reverse recovery charges | | $T_j=125^\circ C$ | | 5 | 6.0 | |
| | | $T_j=25^\circ C$ | Q_{rr} | 60 | --- | nC |
| | | $T_j=125^\circ C$ | | 220 | --- | |

Note :

- (1) 300us Pulse Width, 2% Duty Cycle.
- (2) Thermal Resistance test performed in accordance with JESD-51. R_{thj-L} is measured at the PIN 2, R_{thj-C} is measured at the top centre of body.
- (3) GBD means Guaranteed By Design, the spec is basically follow designer simulation.

REV. 9, Sep-2012, KTGC47

FIG.1- FORWARD CURRENT DERATING CURVE

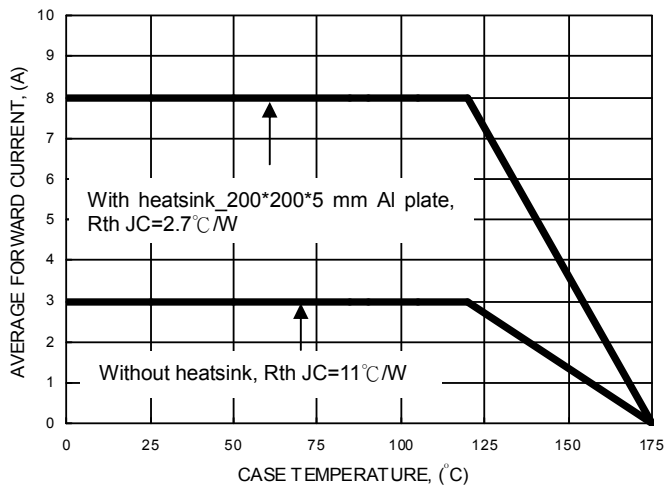


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

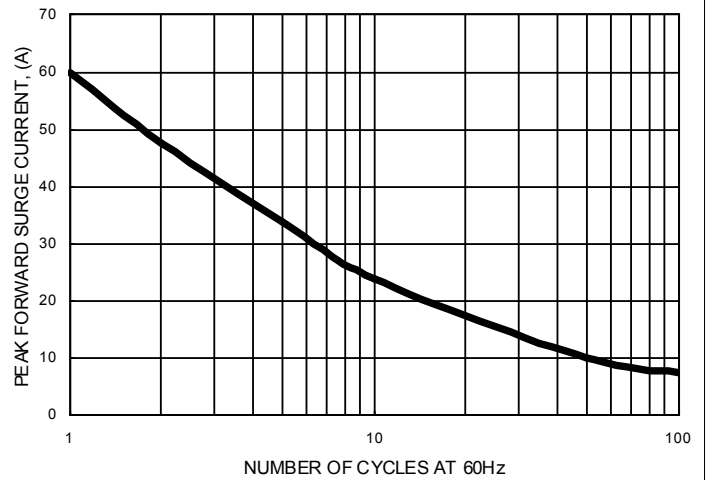


FIG.3- TYPICAL FORWARD CHARACTERISTICS

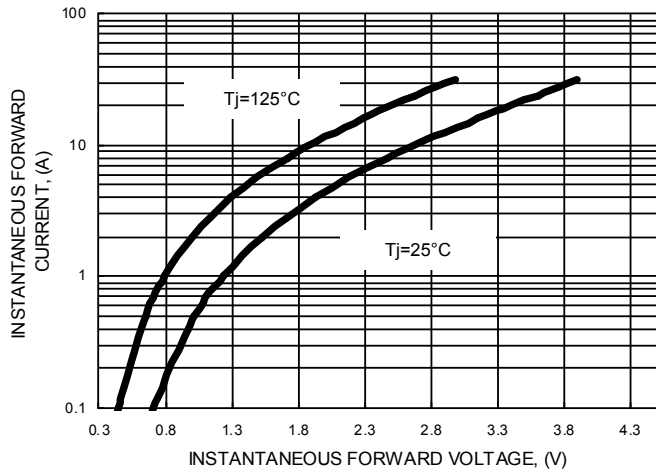


FIG.4- TYPICAL JUNCTION CAPACITANCE

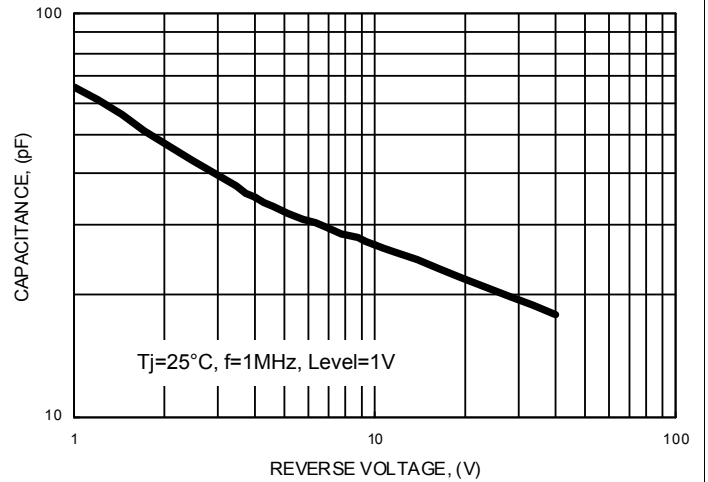


FIG.5- TYPICAL REVERSE CHARACTERISTICS

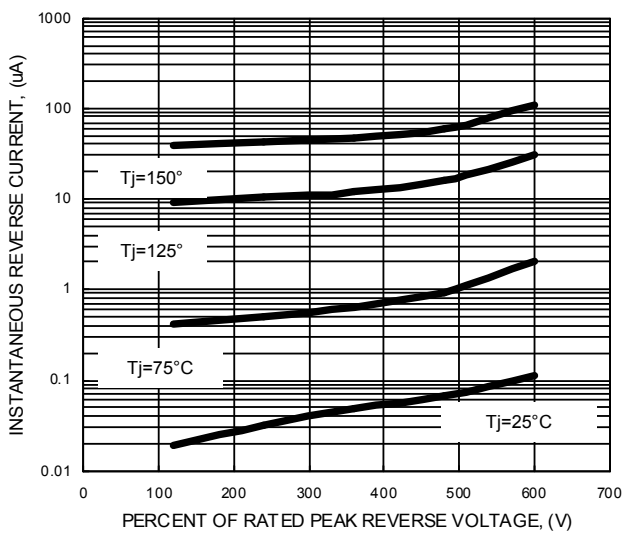
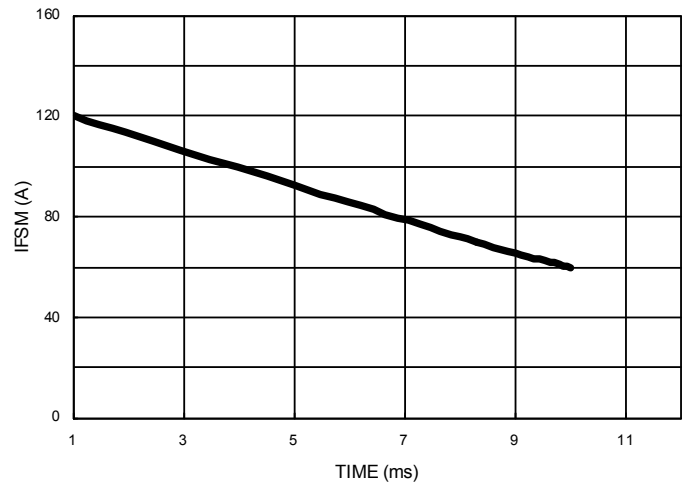


FIG.6- IFSM CAPABILITY CURVE



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