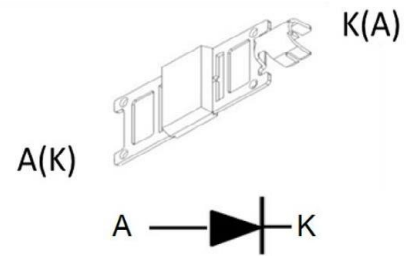


Features

- High surge current
- Low leakage current
- Guarding for over voltage protection
- Ultra low forward voltage, low power loss
- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- Halogen-free according to IEC 61249-2-21



DFT - Module

Applications

- Solar Power

Mechanical Data

- Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 sec
- Shipped 40 units per plastic tube

| Maximum Ratings & Electrical Characteristics (T _A =25°C unless otherwise noted) | | | |
|--|--------------------|-------------|------|
| Parameter | Symbol | GFT3050SM | Unit |
| Maximum repetitive peak reverse voltage | V _{RRM} | 50 | V |
| Working peak reverse voltage | V _{RWM} | 36 | V |
| Maximum DC blocking voltage | V _{DC} | 50 | V |
| Maximum average forward rectified current | I _{F(AV)} | 30 | A |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load per diode | I _{FSM} | 300 | A |
| Peak repetitive reverse current per leg at t _p =4.0us , 1KHz | I _{RRM} | 3 | A |
| Junction Temperature in DC forward Current without reverse bias, t ≤ 1h | T _J | -55 to +200 | °C |
| Storage temperature range | T _{STG} | -55 to +150 | °C |



GFT3050SM

Schottky Barrier Rectifier
Reverse Voltage 50V Forward current 30A

| Electrical Specifications (T _A =25°C unless otherwise noted) | | | | | |
|---|----------------|--|------|------|------|
| Parameter | Symbol | Test Conditions | Typ | Max | Unit |
| Forward Drop Voltage (Note1) | V _F | I _F =15A, T _J =25°C | 0.47 | 0.52 | V |
| | | I _F =15A, T _J =125°C | - | 0.42 | |
| | | I _F =30A, T _J =25°C | - | 0.58 | |
| | | I _F =30A, T _J =125°C | - | 0.52 | |
| Reverse leakage current @V _R (Note2) | I _R | V _R =50V, T _J =25°C | - | 150 | uA |
| | | V _R =40V, T _J =100°C | - | 15 | mA |

| Thermal-Mechanical Specifications (T _A =25°C unless otherwise noted) | | | |
|---|------------------|-----|-------|
| Parameter | Symbol | Typ | Unit |
| Thermal Resistance, Junction to Case | R _{θJC} | 0.7 | °C /W |

Note:

1. Pulse test with PW=0.3ms, duty cycle=2%
2. Pulse test with PW=30ms

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

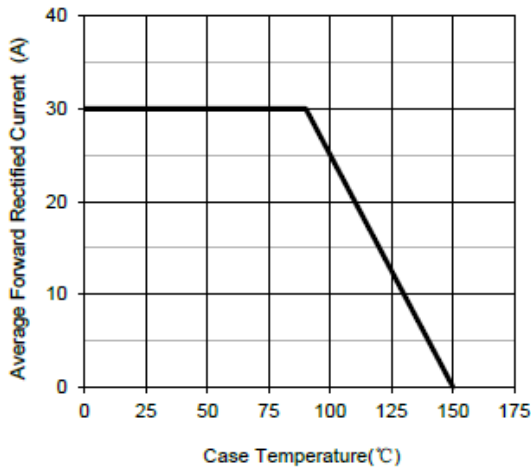


Fig.1 – Forward Current Derating Curve

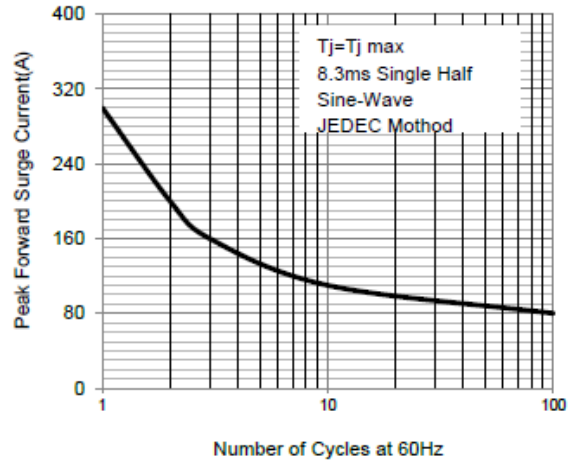


Fig.2 – Maximum Non-Repetitive Surge Current

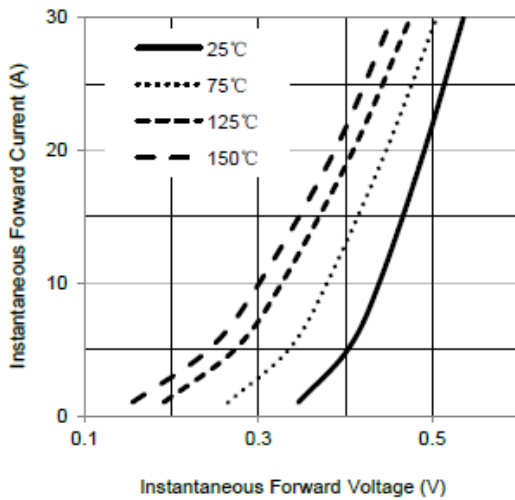


Fig.3 – Typical Forward Voltage Characteristics

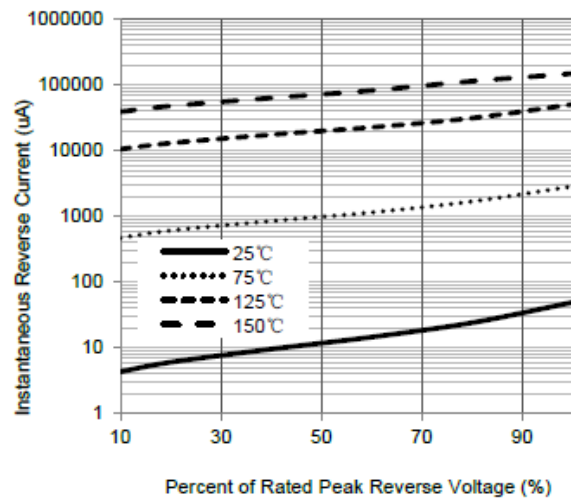
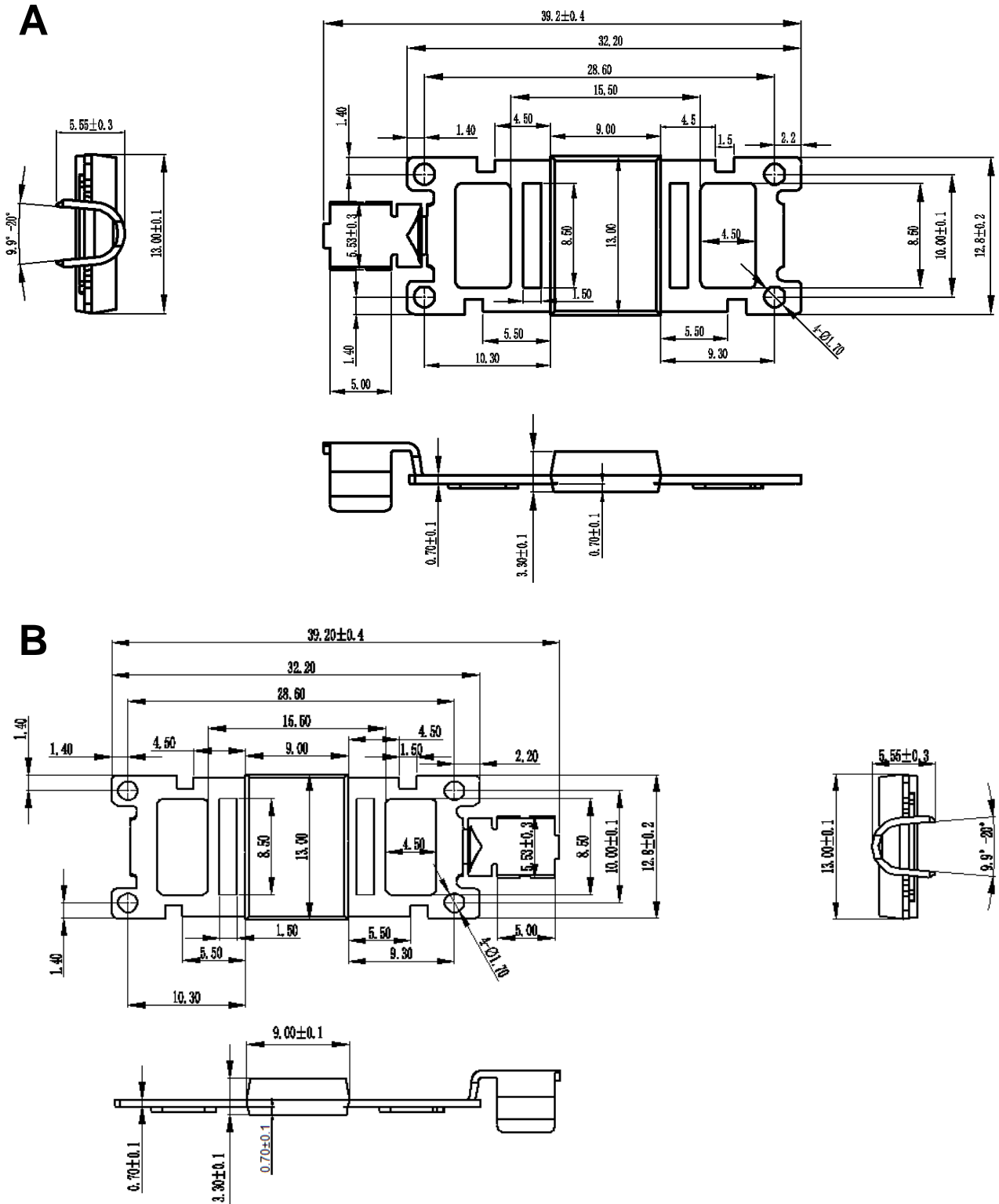


Fig.4 – Typical Reverse Current Characteristics

Package Outline Dimensions (Unit: millimeters)

DFT - Module





GFT3050SM

Schottky Barrier Rectifier
Reverse Voltage 50V Forward current 30A

Revision History

| Document Version | Date of release | Description of changes |
|-------------------------|------------------------|-------------------------------|
| Rev.A | 2021.06.24 | Released Datasheet |
| Rev.B | 2023.06.15 | Modify document format |



GFT3050SM

Schottky Barrier Rectifier
Reverse Voltage 50V Forward current 30A

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