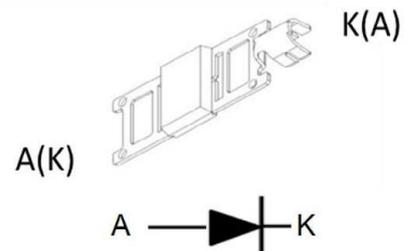


## Features

- 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 <sub>A</sub> =25°C unless otherwise noted)			
Parameter	Symbol	GFT5050SM	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	V
Working peak reverse voltage	V <sub>RWM</sub>	36	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	50	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load per diode	I <sub>FSM</sub>	300	A
Peak repetitive reverse current per leg at t <sub>p</sub> =4.0us , 1KHz	I <sub>RRM</sub>	3	A
Junction Temperature in DC forward Current without reverse bias, t ≤ 1h	T <sub>J</sub>	-55 to +200	°C
Storage temperature range	T <sub>STG</sub>	-55 to +150	°C



# GFT5050CT

Schottky Barrier Rectifier  
Reverse Voltage 50V Forward current 50A

Electrical Specifications (T <sub>A</sub> =25°C unless otherwise noted)					
Parameter	Symbol	Test Conditions	Typ	Max	Unit
Forward Drop Voltage (Note1)	V <sub>F</sub>	I <sub>F</sub> =30A, T <sub>J</sub> =25°C	0.46	0.50	V
		I <sub>F</sub> =30A, T <sub>J</sub> =125°C	-	0.42	
		I <sub>F</sub> =50A, T <sub>J</sub> =25°C	0.50	0.55	
		I <sub>F</sub> =50A, T <sub>J</sub> =125°C	-	0.48	
Reverse leakage current @V <sub>R</sub> (Note2)	I <sub>R</sub>	V <sub>R</sub> =50V, T <sub>J</sub> =25°C	-	100	uA
		V <sub>R</sub> =40V, T <sub>J</sub> =100°C	-	12	mA

Thermal-Mechanical Specifications (T <sub>A</sub> =25°C unless otherwise noted)			
Parameter	Symbol	Typ	Unit
Thermal Resistance, Junction to Case	R <sub>θJC</sub>	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)

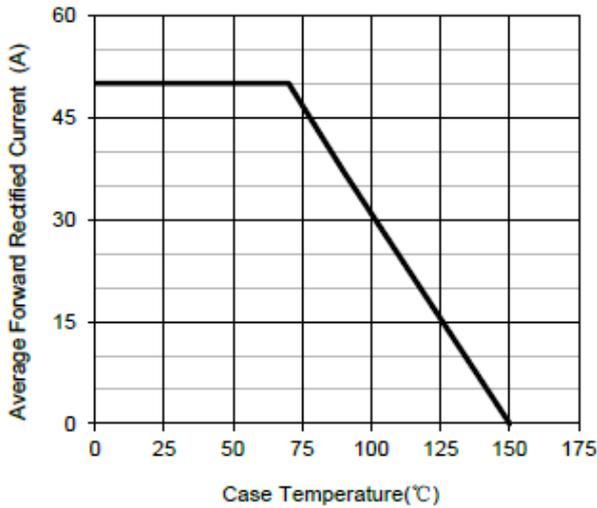


Fig.1 – Forward Current Derating Curve

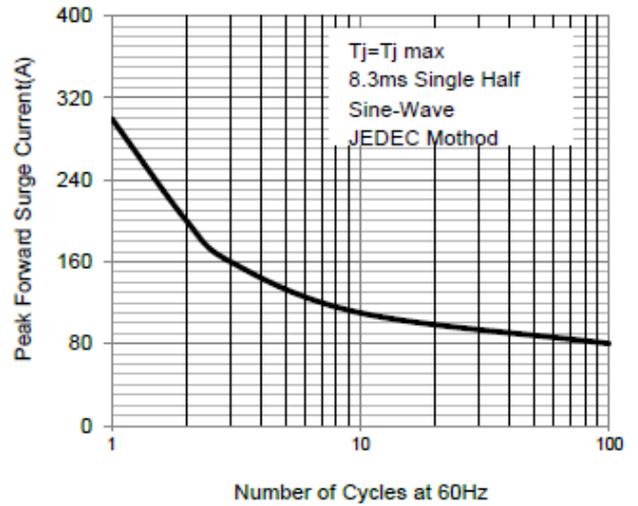


Fig.2 – Maximum Non-Repetitive Surge Current

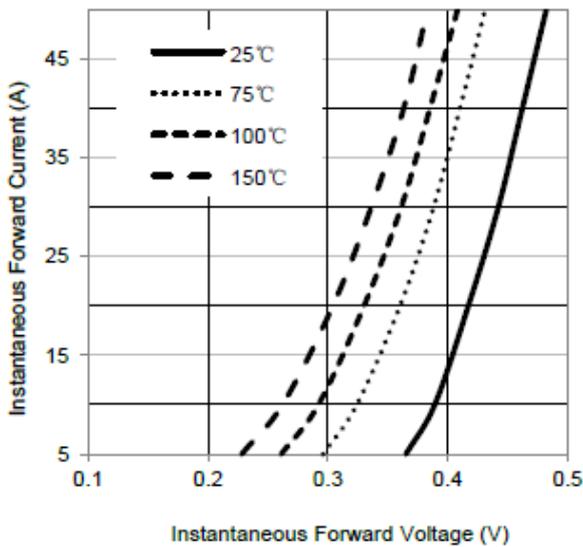


Fig.3 – Typical Forward Voltage Characteristics

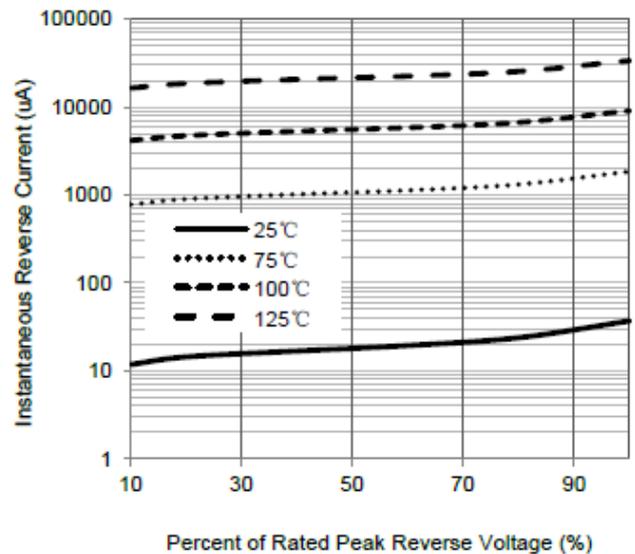
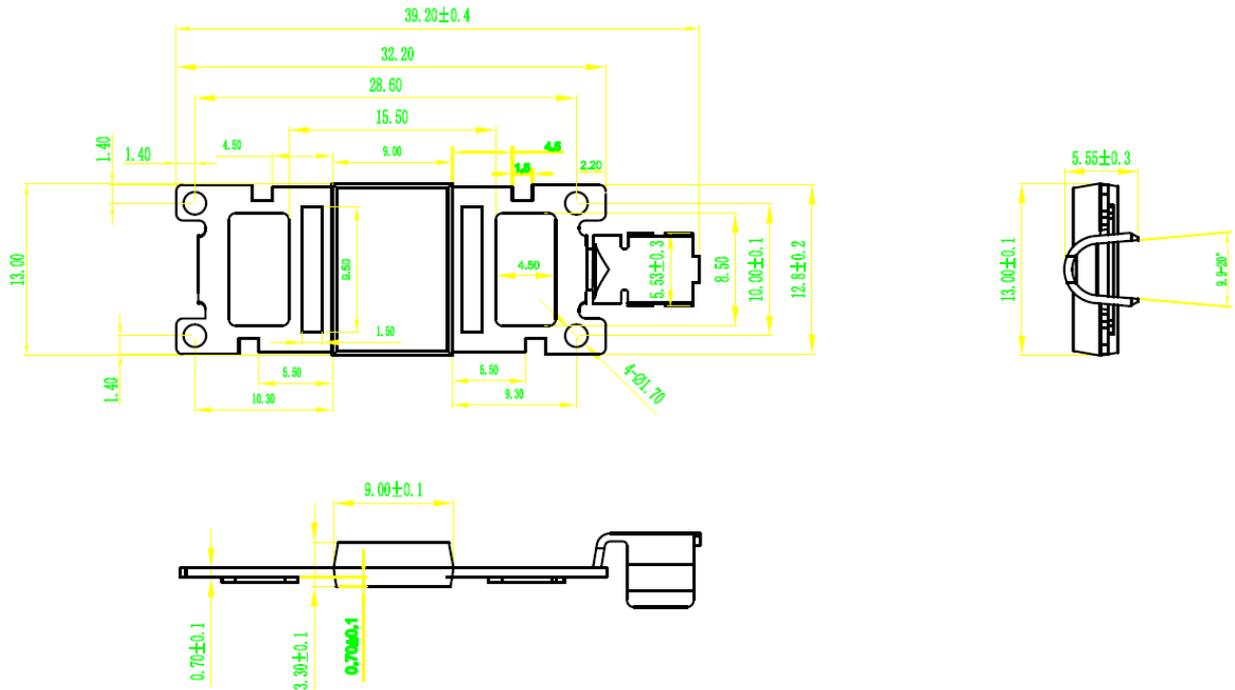


Fig.4 – Typical Reverse Current Characteristics

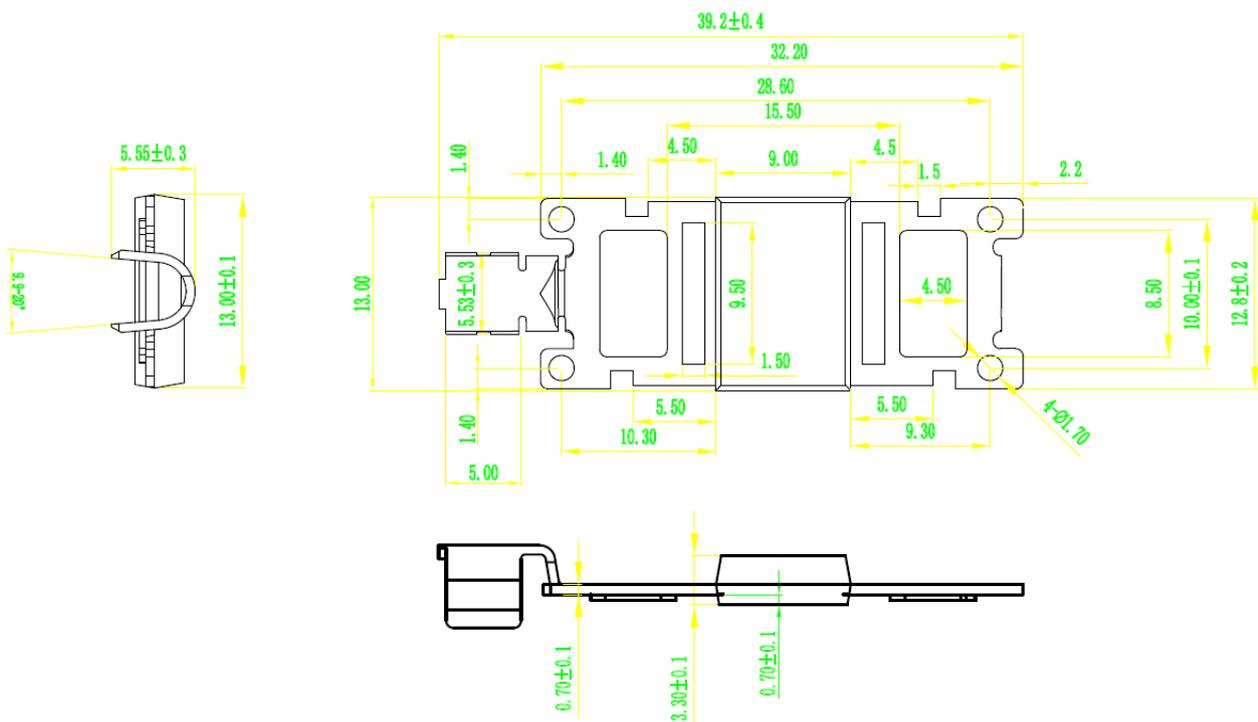
## Package Outline Dimensions (Unit: millimeters)

### DFT - Module

**A**



**B**





**GFT5050CT**  
Schottky Barrier Rectifier  
Reverse Voltage 50V Forward current 50A

**Revision History**

<b>Document Version</b>	<b>Date of release</b>	<b>Description of changes</b>
Rev.A	2021.10.28	Released Datasheet
Rev.B	2021.11.18	Part No Revision
Rev.C	2023.06.15	Modify document format



# **GFT5050CT**

Schottky Barrier Rectifier  
Reverse Voltage 50V Forward current 50A

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