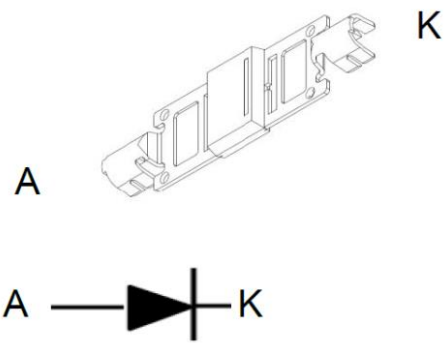
40A,50V Schottky Barrier Rectifier

Features

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



FT-Module

Applications

- Solar Power

Mechanical Data

- Case: Epoxy, Molded
- Weight: 3.3grams（approximately）
- 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℃ unless otherwise noted)

Parameter	Symbol	GFT4050SM	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	V
Maximum RMS voltage	V_{RMS}	36	V
Maximum DC blocking voltage	V_{DC}	50	V
Maximum average forward	$I_{F(AV)}$	40	A
Peak forward surge current,8.3ms single half sine-wave superimposed on rated load	I_{FSM}	300	A
Peak repetitive reverse current per leg at tp=4.0us ,1KHz	IRRM	3.0	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

Electrical Specifications (T_A=25℃ unless otherwise noted)					
Parameter	**Symbol**	**Test Conditions**	**Typ**	**Max**	**Unit**
Forward Drop Voltage (Note1)	V_F	I_F=20A, T_J =25℃	-	0.50	V
		I_F=20A, T_J =125℃	-	0.42	
		I_F=40A, T_J =25℃	-	0.58	
		I_F=40A, T_J =125℃	-	0.52	
Reverse leakage current @VR (Note2)	I_R	VR=50V,T_J =25℃	-	200	uA
		VR=40V,T_J =100℃	-	25	mA

Thermal-Mechanical Specifications (T_A=25℃ unless otherwise noted)			
Parameter	**Symbol**	**Typ**	**Unit**
Thermal Resistance, Junction to Case	$R_{\theta JC}$	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

(T_A = 25℃ unless otherwise noted)

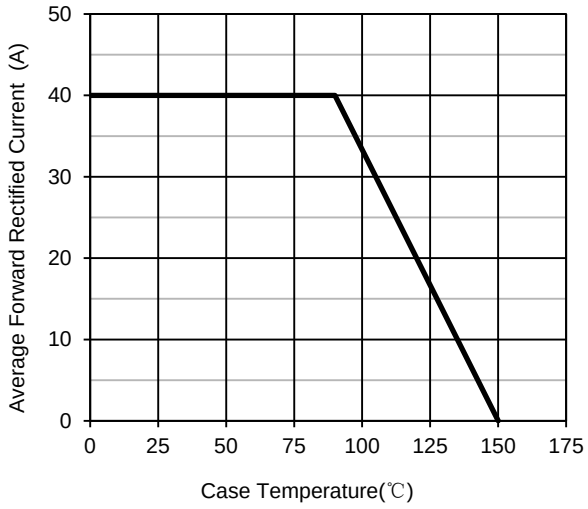


Fig.1 – Forward Current Derating Curve

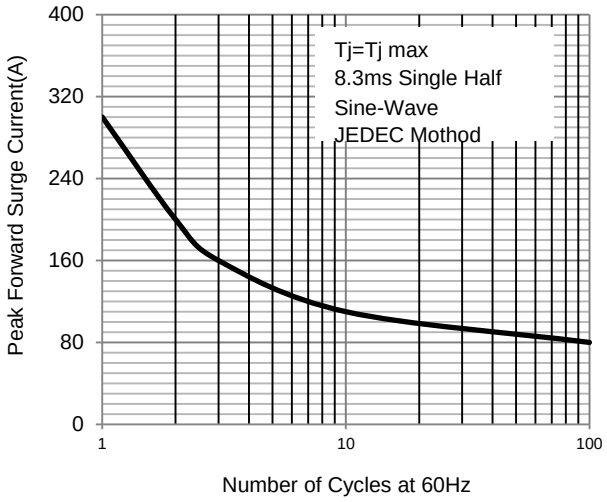


Fig.2 – Maximum Non-Repetitive Surge Current

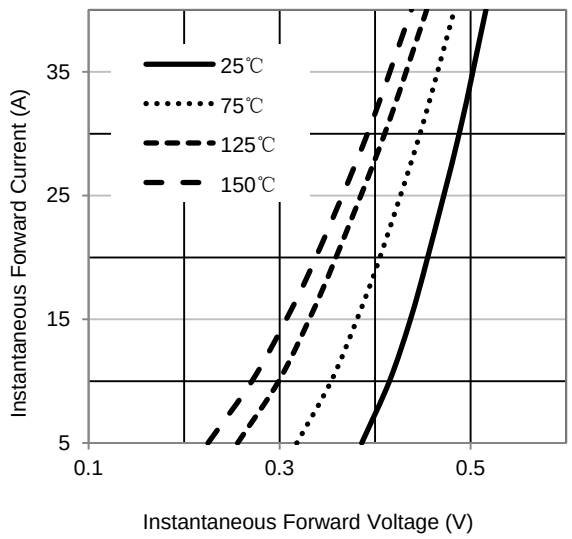


Fig.3 – Typical Forward Voltage Characteristics

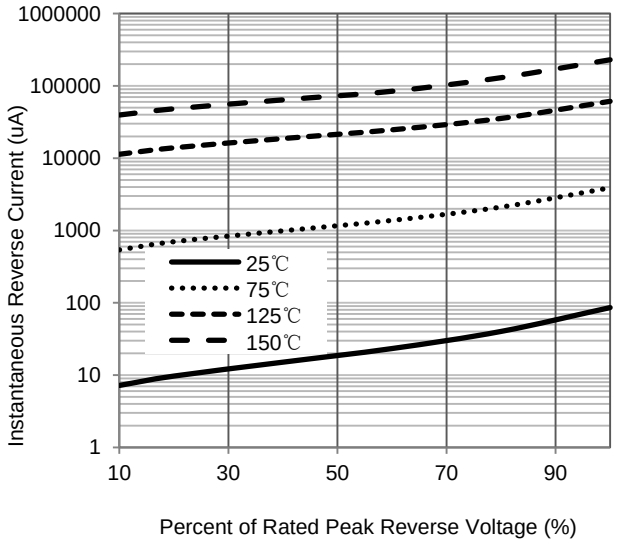
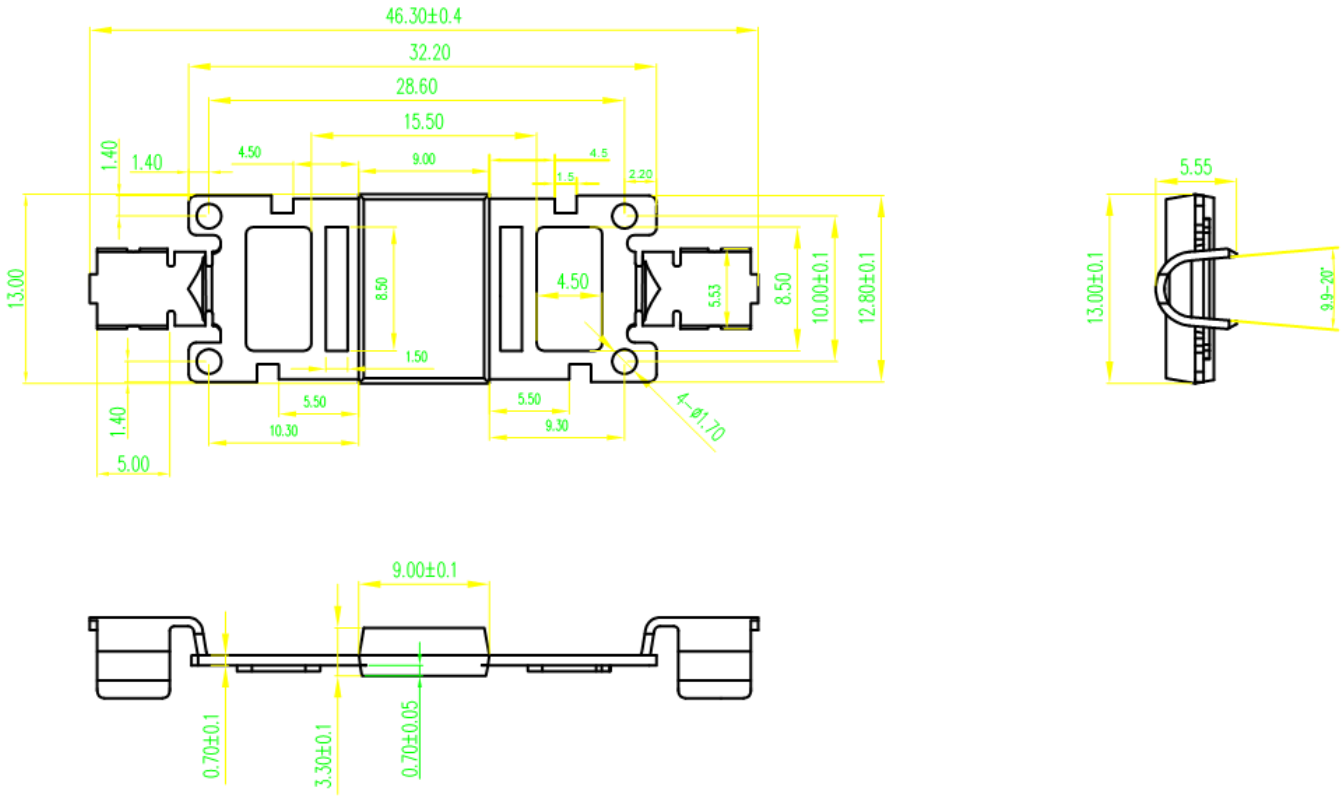


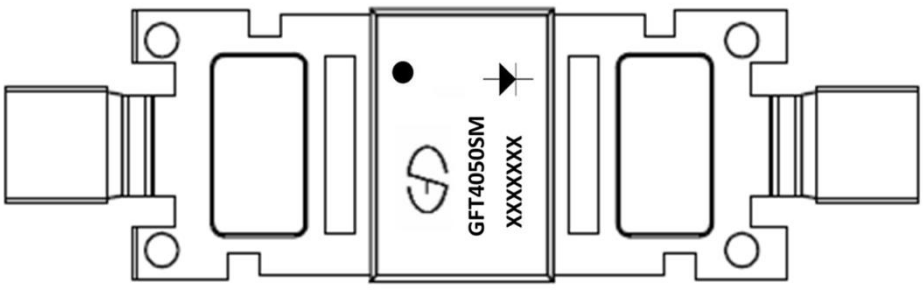
Fig.4 – Typical Reverse Current Characteristics

Package Outline Dimensions (Unit: millimeters)

FT-Module



Marking Outline



1. Logo Mark:
2. Part Name: GFT4050SM
3. Data Code: XXXXXXX
4. Polarity :

Revision History

Document Version	Date of release	Description of changes
Rev.A	2021.08.04	Released Datasheet

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