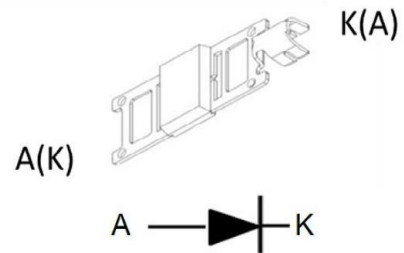


Features

- 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	GFT4050SM	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)}	40	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



GFT4050SM

Schottky Barrier Rectifier
Reverse Voltage 50V Forward current 40A

Electrical Specifications (T _A =25°C unless otherwise noted)					
Parameter	Symbol	Test Conditions	Typ	Max	Unit
Forward Drop Voltage (Note1)	V _F	I _F =20A, T _J =25°C	-	0.50	V
		I _F =20A, T _J =125°C	-	0.42	
		I _F =40A, T _J =25°C	-	0.58	
		I _F =40A, T _J =125°C	-	0.52	
Reverse leakage current @V _R (Note2)	I _R	V _R =50V, T _J =25°C	-	200	uA
		V _R =40V, T _J =100°C	-	25	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)

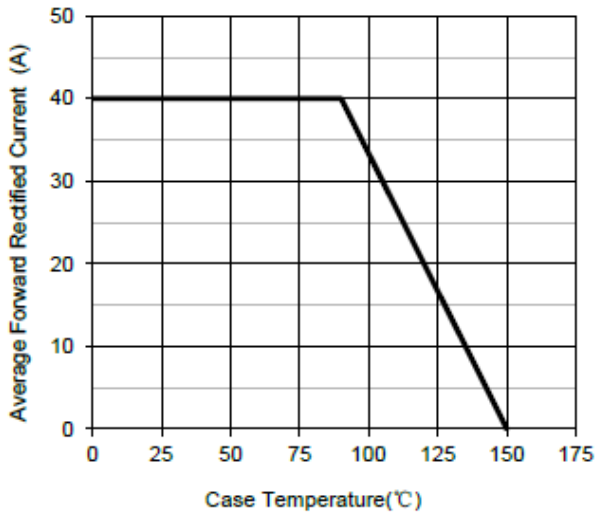


Fig.1 – Forward Current Derating Curve

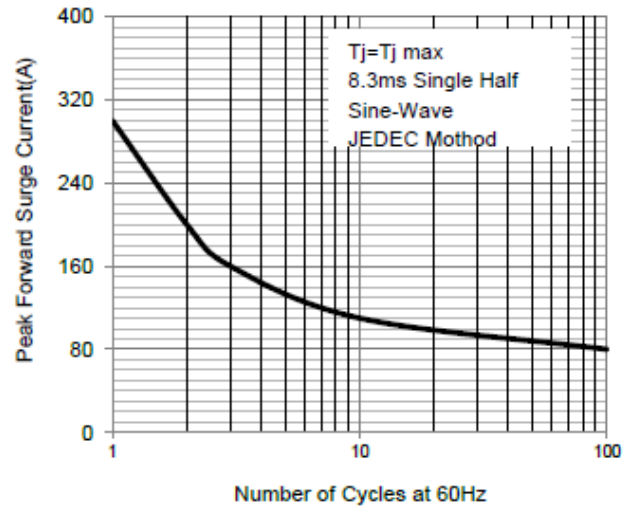


Fig.2 – Maximum Non-Repetitive Surge Current

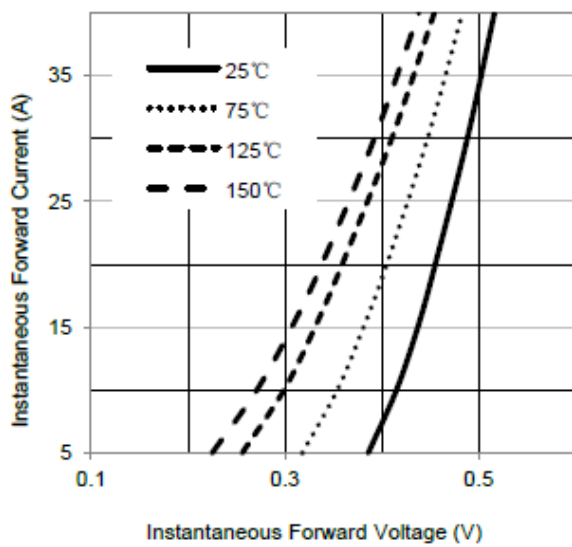


Fig.3 – Typical Forward Voltage Characteristics

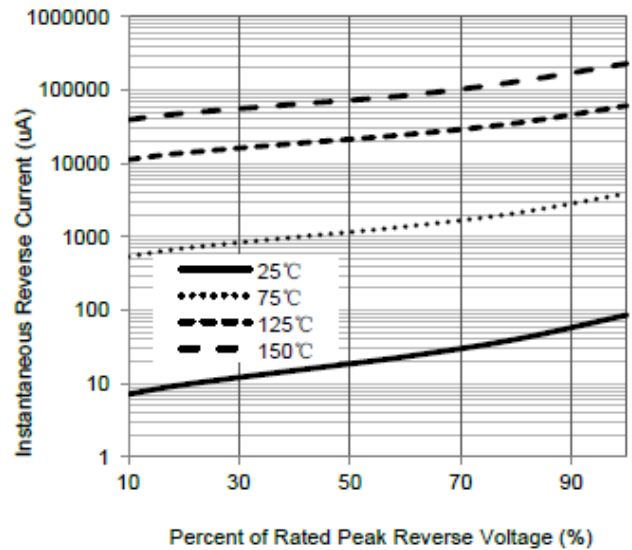
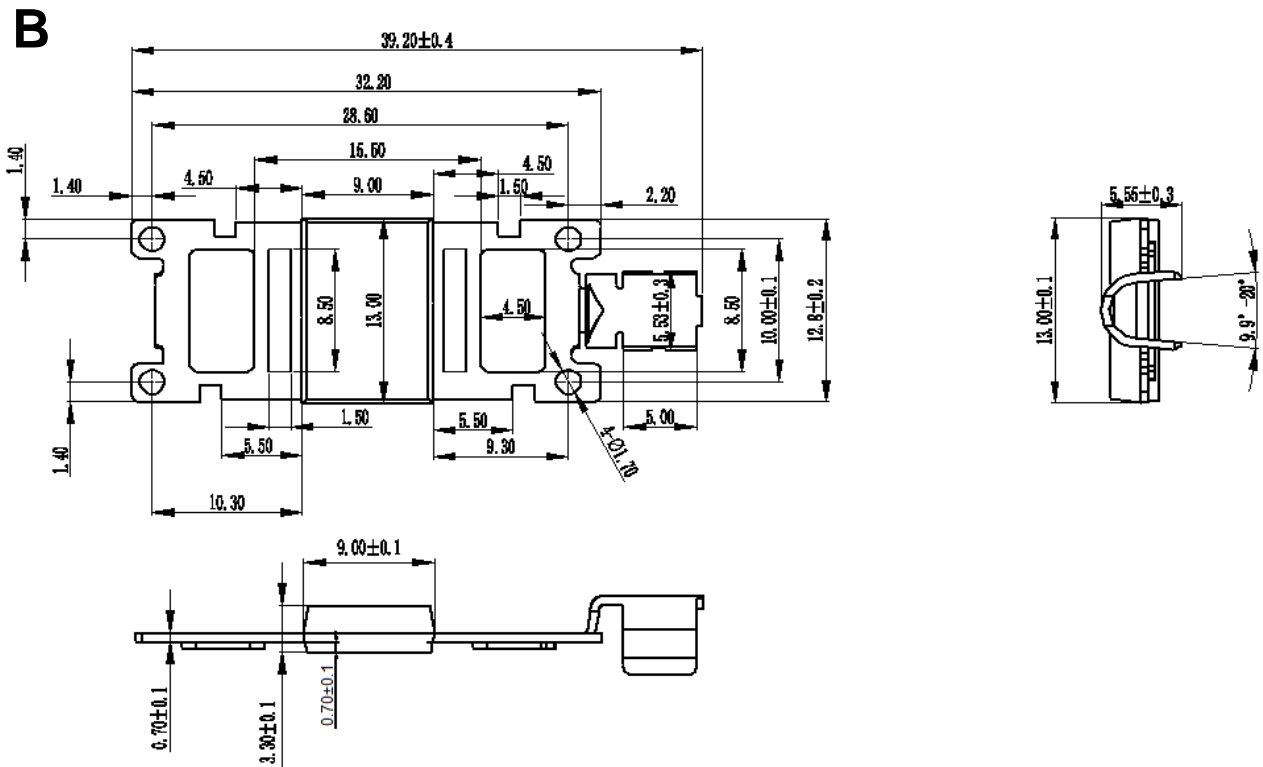
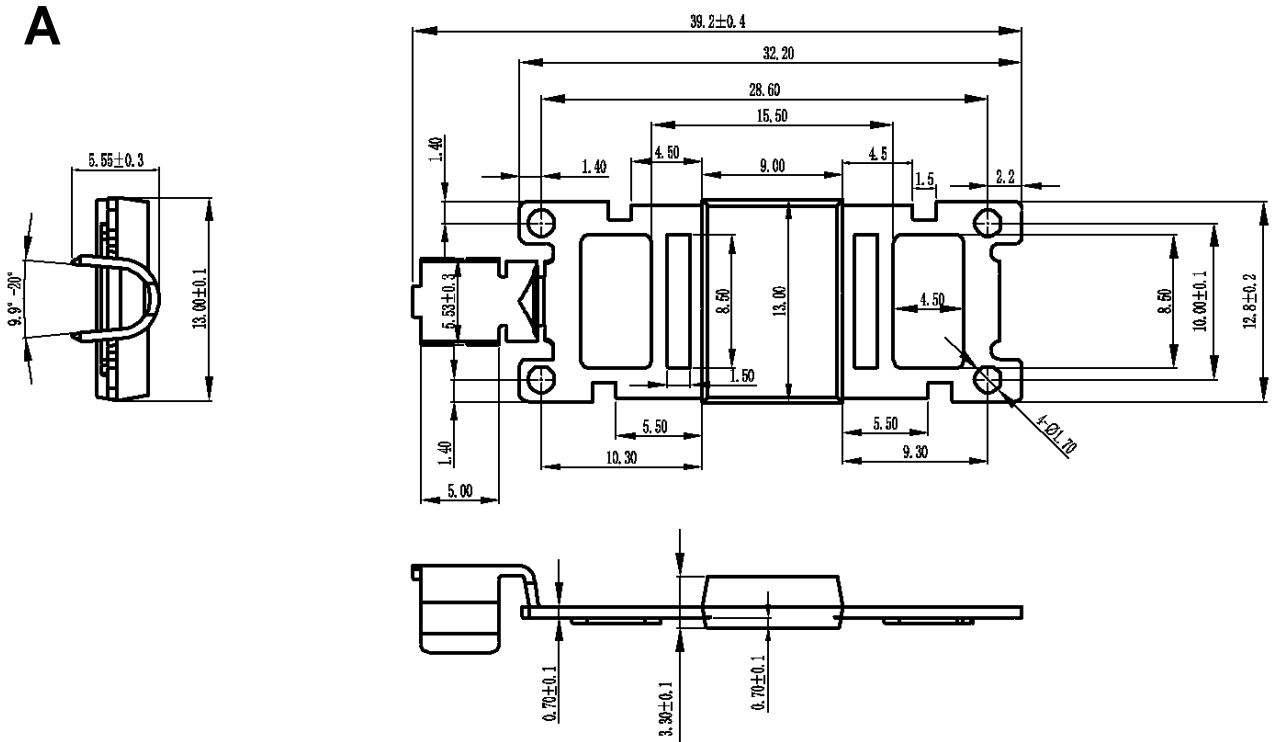


Fig.4 – Typical Reverse Current Characteristics

Package Outline Dimensions (Unit: millimeters)

DFT - Module





GFT4050SM

Schottky Barrier Rectifier
Reverse Voltage 50V Forward current 40A

Revision History

Document Version	Date of release	Description of changes
Rev.A	2021.08.04	Released Datasheet
Rev.B	2023.06.15	Modify document format



GFT4050SM

Schottky Barrier Rectifier
Reverse Voltage 50V Forward current 40A

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