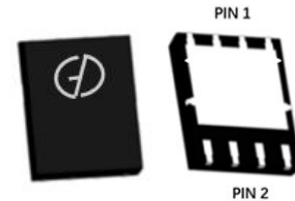


10A, 650V Silicon Carbide Schottky Diode

Features

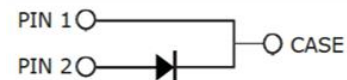
- High-Frequency Operation
- Zero Reverse Recovery Current
- Temperature-Independent Switching
- Extremely Fast Switching
- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- Halogen-free according to IEC 61249-2-21



DFN5*6

Applications

- Boost Diodes in PFC or DC/DC stages
- LED Lighting Power Supplies
- Power Factor Correction



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 5000 units per reel

Maximum Ratings & Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	GS10D065SM	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	650	V
Working peak reverse voltage	V _{RWM}	650	V
Maximum DC blocking voltage	V _{DC}	650	V
Maximum average forward rectified current	T _C =25°C	32	A
	T _C =135°C	16	
	T _C =159°C	10	
Peak forward surge current, t _p =10ms, Half Sine Pulse	I _{FSM}	80	A
Power dissipation	T _C =25°C	93	W
	T _C =110°C	40	
Operating junction temperature range	T _J	-55 to +175	°C
Storage temperature range	T _{STG}	-55 to +175	°C

Electrical Specifications (T_A=25°C unless otherwise noted)

Parameter	Symbol	Test Conditions	Typ	Max	Unit
Forward drop voltage	V _F	I _F =10A, T _J =25°C	1.3	1.5	V
		I _F =10A, T _J =175°C	1.55	-	
Reverse leakage current @rated V _R	I _R	V _R =650V, T _J =25°C	5	50	μA
		V _R =650V, T _J =175°C	10	100	
Total capacitive charge	Q _C	V _R =400V, T _J =25°C	27	-	nC
Total capacitance	C	V _R =400V, T _J =25°C, f=1MHz	43	-	pF

Thermal-Mechanical Specifications (T_A=25°C unless otherwise noted)

Parameter	Symbol	Typ	Max	Unit
Thermal Resistance, Junction to Case	R _{θJC}	1.6	-	°C /W

Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

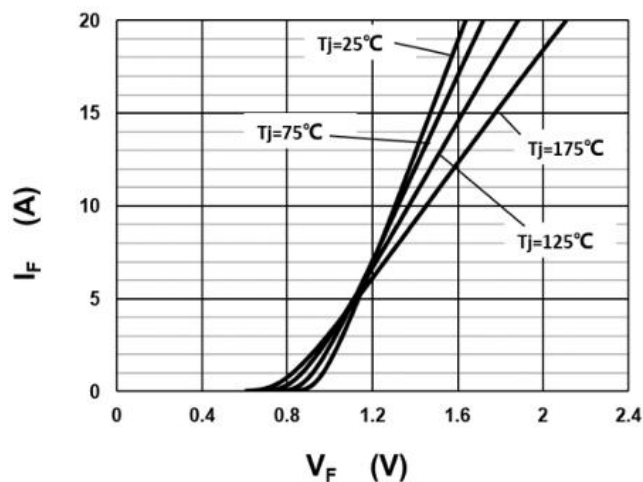


Fig.1 -Forward Characteristics

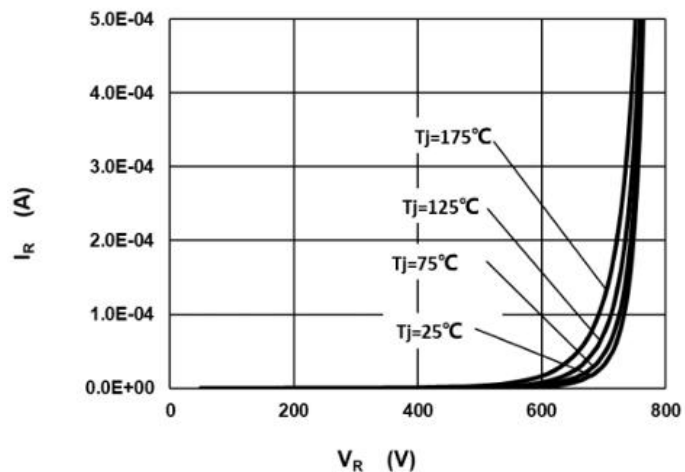


Fig.2 -Reverse Characteristics

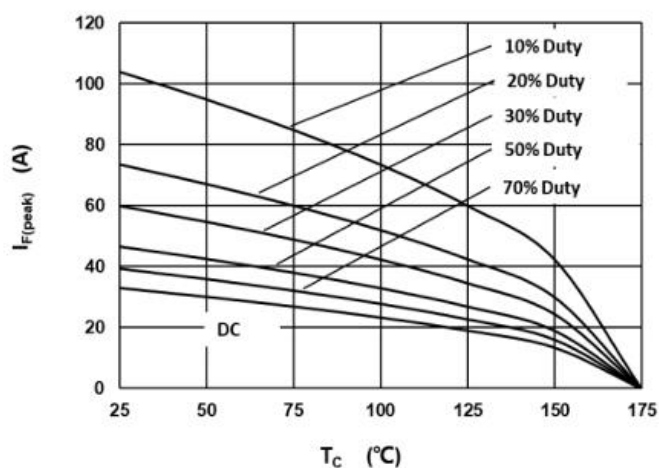


Fig.3 -Current Derating

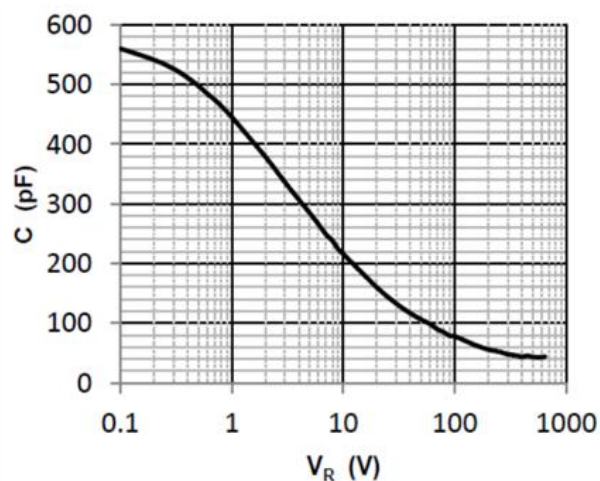


Fig.4 -Capacitance vs. Reverse Voltage

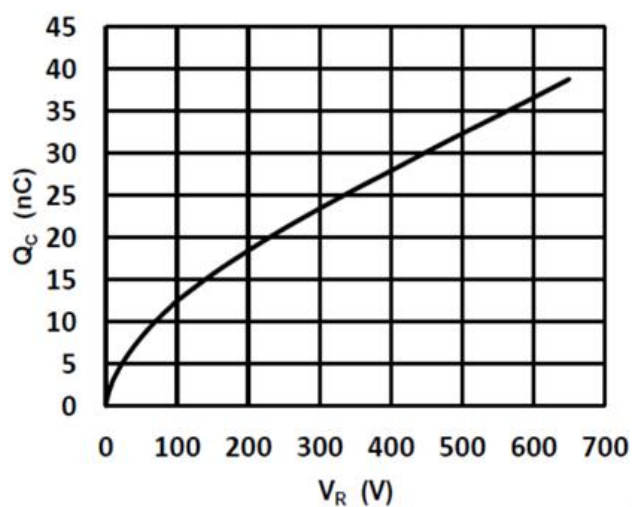


Fig.5 -Total Capacitance Charge vs. Reverse Voltage

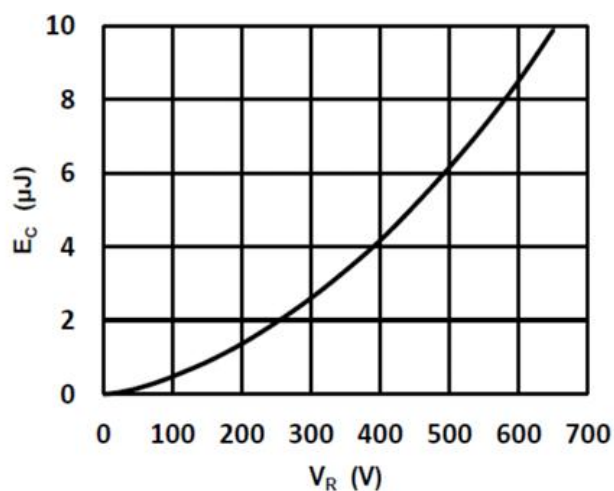
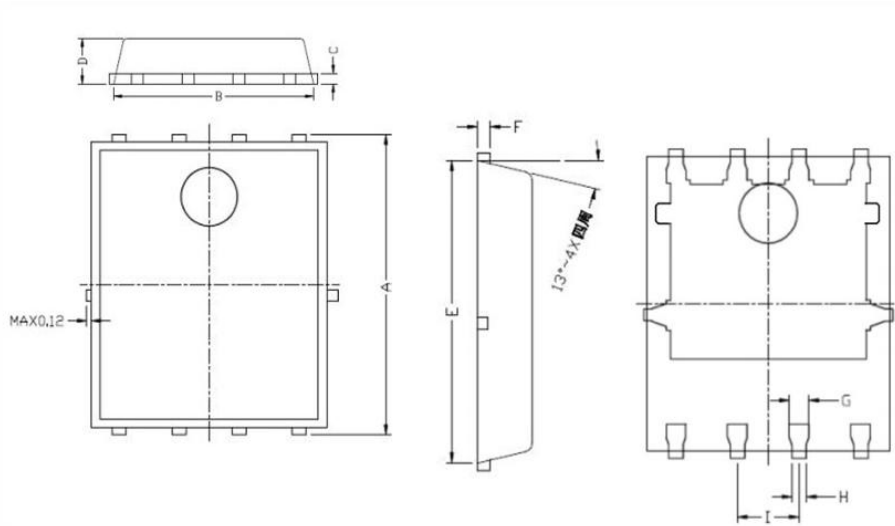


Fig.6 -Typical Capacitance Stored Energy

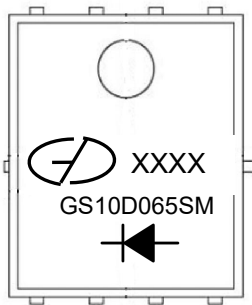
Package Outline Dimensions (Unit: millimeters)

DFN5*6



项目	规范(mm)	
	MIN	MAX
A	6.05	6.25
B	4.975	5.025
C	0.246	0.262
D	1.075	1.125
E	5.835	5.885
F	0.246	0.262
G	0.3	0.5
H	0.2	0.4
I	1.26	1.28

Marking Outline



1. Logo Mark: 
2. Data code: XXXX
3. Part Name: GS10D065SM
4. Polarity : 

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