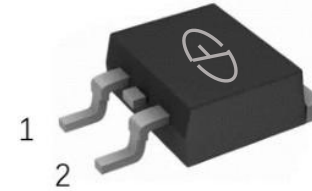


10A, 1200V Silicon Carbide Schottky Diode

Features

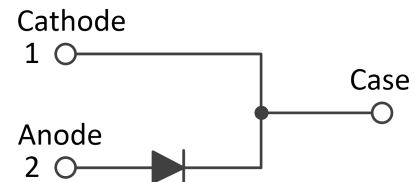
- High-Frequency Operation
- Zero Reverse Recovery Current
- Temperature-Independent Switching
- Extremely Fast Switching
- Plastic package has underwriters Laboratory Flammability Classification 94V
- Halogen-free according to IEC 61249-2-21



TO-263-2

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 800 units per plastic tube

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

Parameter	Symbol	GS10D120SW	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	1200	V
Working peak reverse voltage	V _{RWM}	1200	V
Maximum DC blocking voltage	V _{DC}	1200	V
Maximum average forward rectified current	T _C =25°C	30	A
	T _C =135°C	15	
	T _C =157°C	10	
Peak forward surge current, t _p =10ms, Half Sine Pulse	I _{FSM}	90	A
Power dissipation	T _C =25°C	115	W
	T _C =110°C	50	
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)

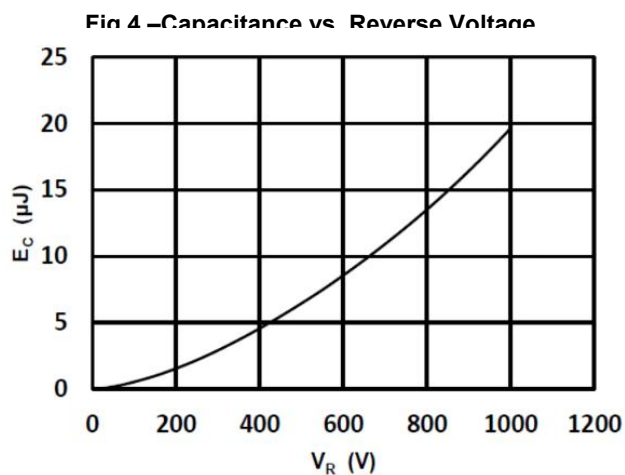
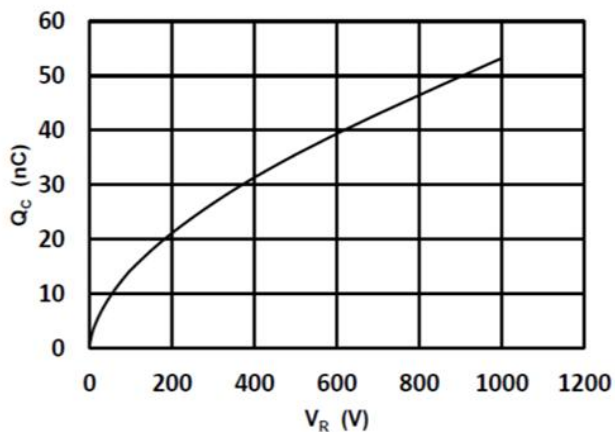
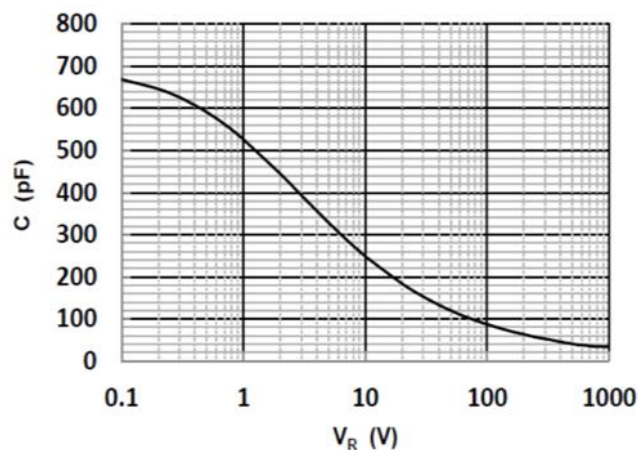
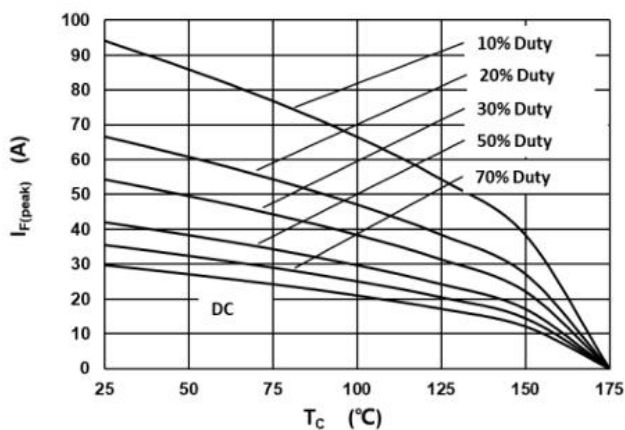
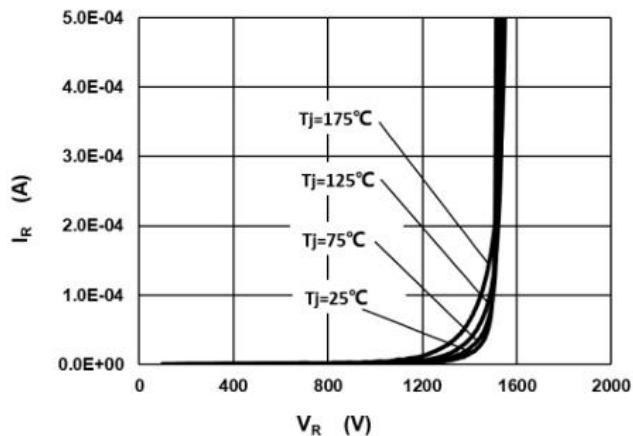
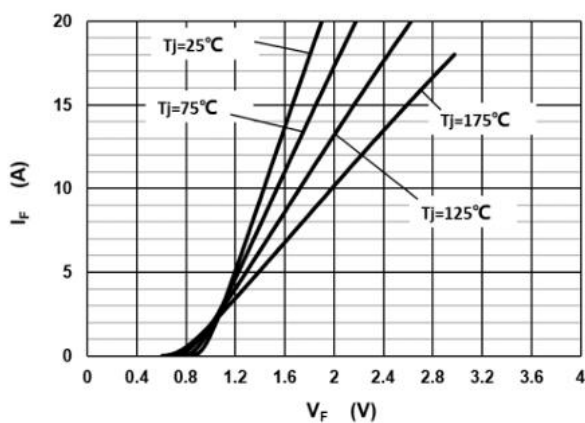
Parameter	Symbol	Test Conditions	Typ	Max	Unit
Forward drop voltage	V _F	I _F =10A, T _J =25°C	1.4	1.7	V
		I _F =10A, T _J =175°C	2.0	-	
Reverse leakage current @rated V _R	I _R	V _R =1200V, T _J =25°C	3	50	μA
		V _R =1200V, T _J =175°C	10	100	
Total capacitive charge	Q _C	V _R =800V, T _J =25°C	48	-	nC
Total capacitance	C	V _R =800V, T _J =25°C, f=1MHz	35	-	pF

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

Parameter	Symbol	Typ	Max	Unit
Thermal Resistance, Junction to Case	R _{θJC}	1.3	-	°C /W

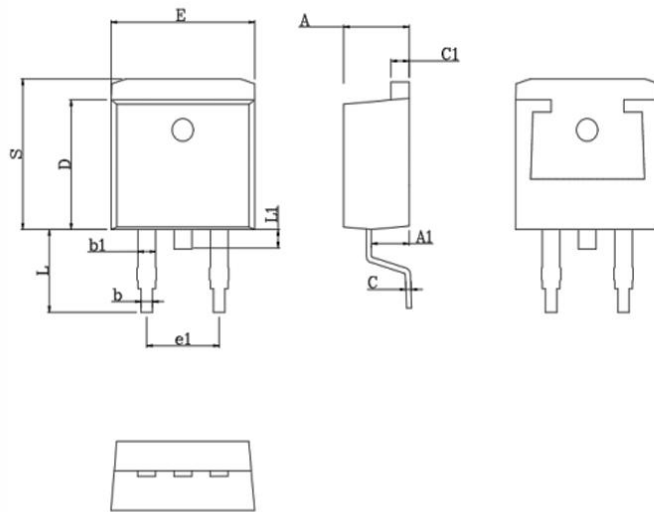
Ratings and Characteristics Curves

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



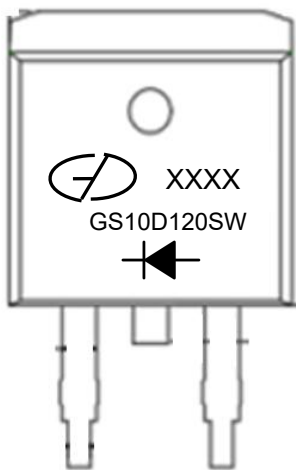
Package Outline Dimensions (Unit: millimeters)

TO-263-2



SYMBOL	mm		
	Min	Nom	Max
A	4.55	4.60	4.65
A1	2.60	2.65	2.70
C	0.33	0.38	0.50
C1	1.22	1.27	1.37
E	10.00	10.12	10.30
D	8.50	8.60	8.70
S	9.80	10.00	10.20
L	4.80	5.0	5.20
L1	1.20	1.30	1.40
b	0.76	0.81	0.86
b1	1.20	1.25	1.30
e1	4.93	5.08	5.23

Marking Outline



1. Logo Mark: 
2. Data code: XXXX
3. Part Name: GS10D120SW
4. Polarity : 

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