

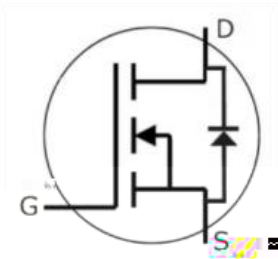
S3M013120V1K-A



TriQSiC™1200V Silicon Carbide Power MOSFET G3

Features

-
-
-
-
-



Benefits

-
-
-
-
-

Part number	Die size	W x L	mm

Applications

-
-
-
-

Table 1 Key performance and package parameters

Type	V_{DS}	I_{DS} ≤	$R_{DS(on), typ}$	$T_{J,max}$

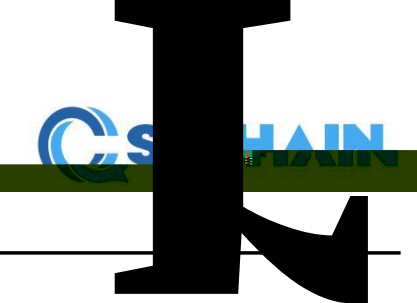


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Features1

Benefits ; .

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1 Maximum ratings

Table 2 Maximum rating

Symbol	Parameter	Value	Unit	Test Conditions	Note
				≤	

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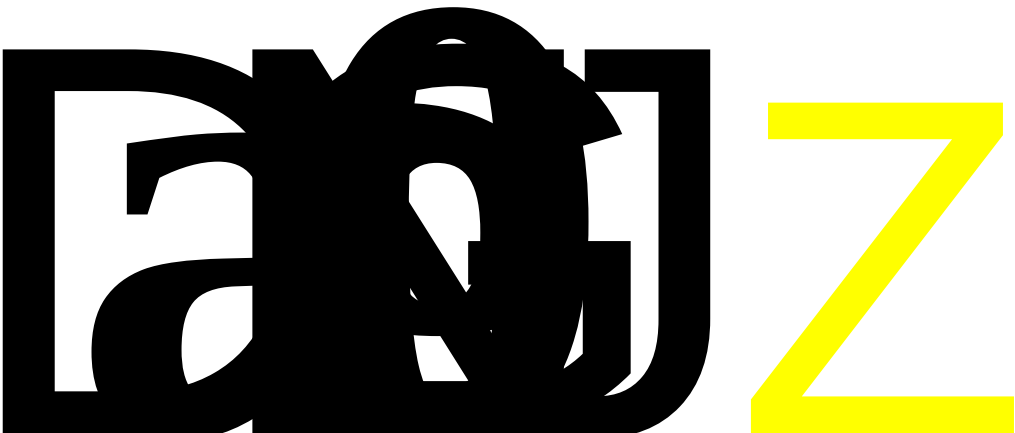


2 Electrical characteristics

2.1 Static characteristics

Table 4 Static characteristics

Symbol	Parameter	Min.	Typ.	Max.	Unit	Test Conditions	Note
						f_{sw} = 10 kHz	
						V_{GS} = 15 V	
						V_{DS} = 1200 V	
						I_{AS} = 10 A	
						T_J = 25 °C	
						$R_{\theta JA}$ = 1.5 °C/W	



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2.3 Switching characteristics

Table 6 Dynamic characteristics(

Symbol	Parameter	Min.	Typ.	Max.	Unit	Test Conditions	Note

Table 7 Body diode characteristics(

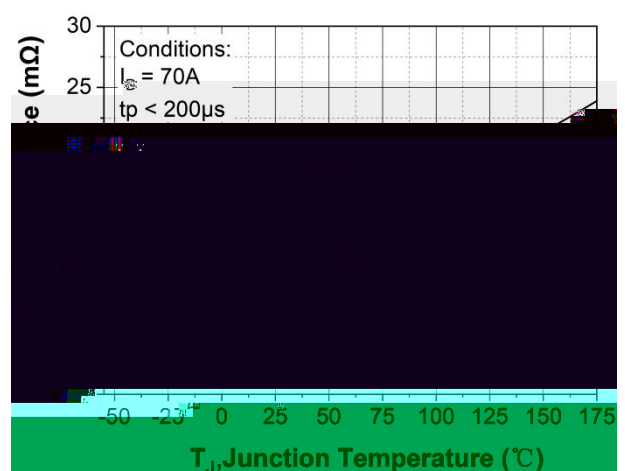
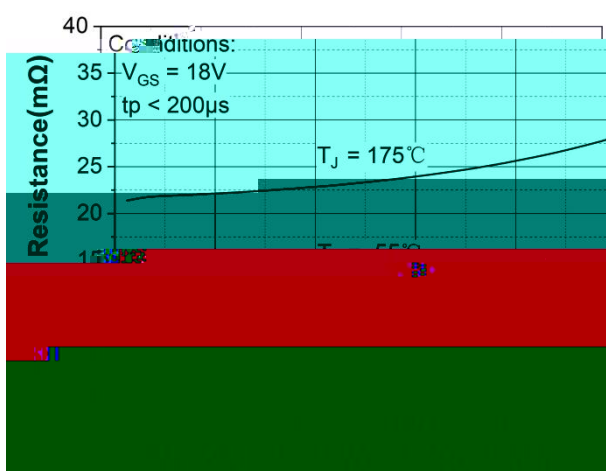
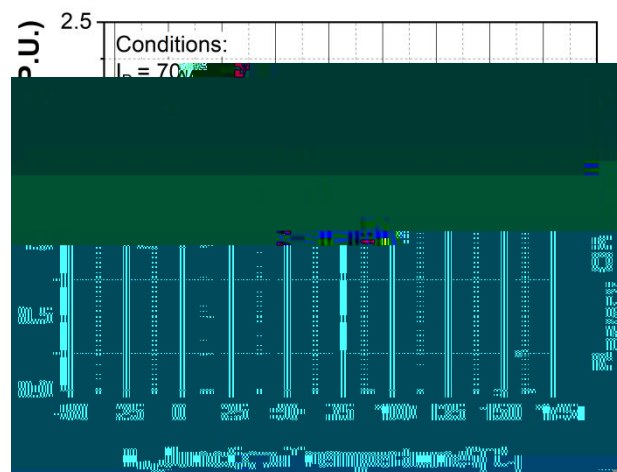
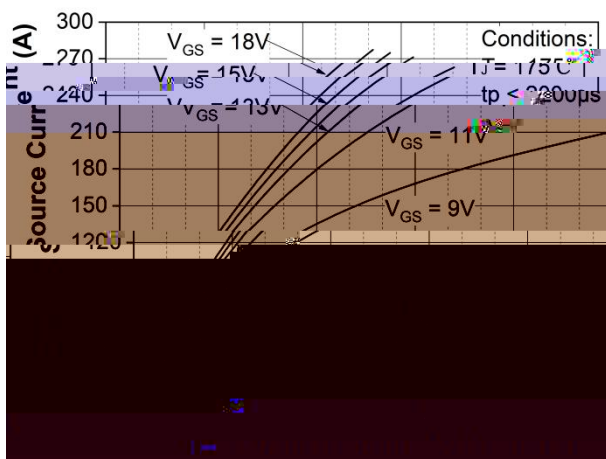
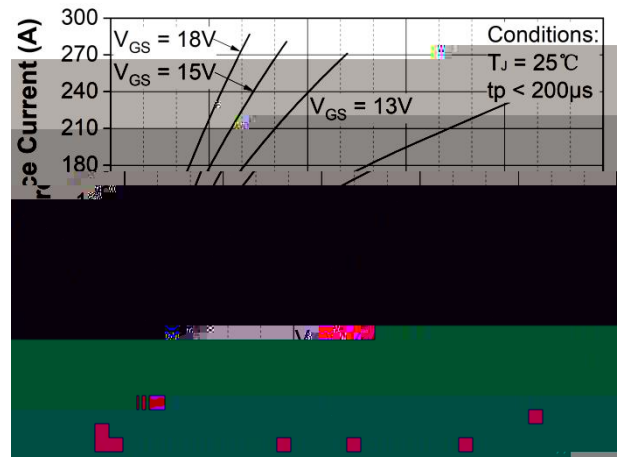
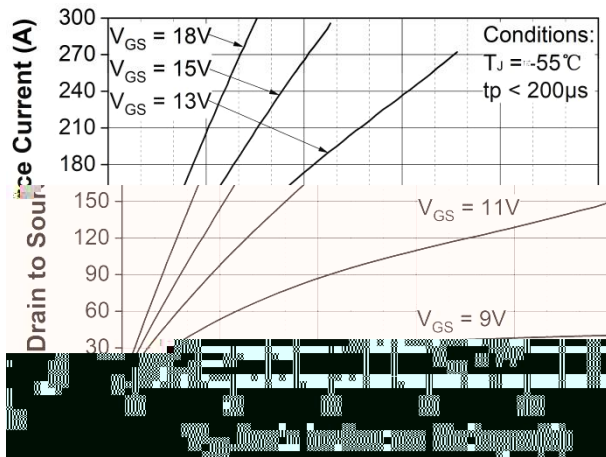
Symbol	Parameter	Min.	Typ.	Max.	Unit	Test Conditions	Note

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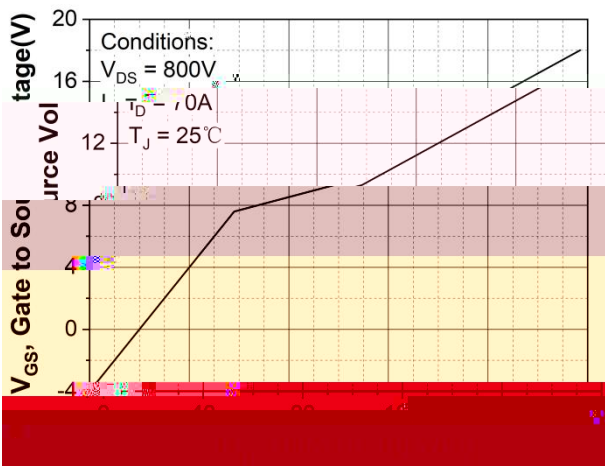
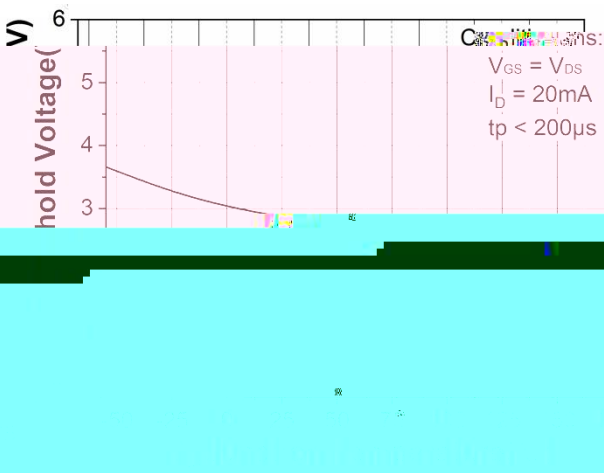
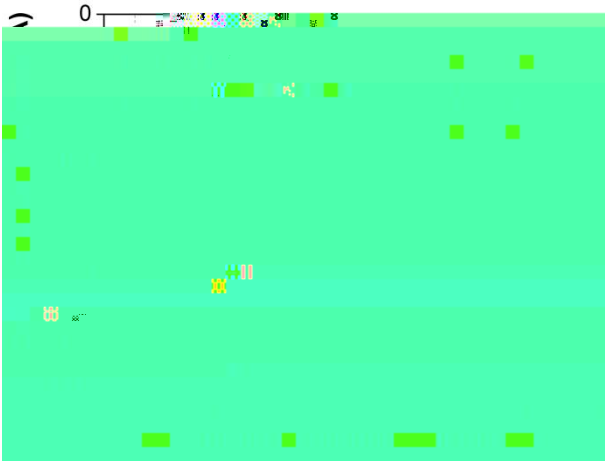
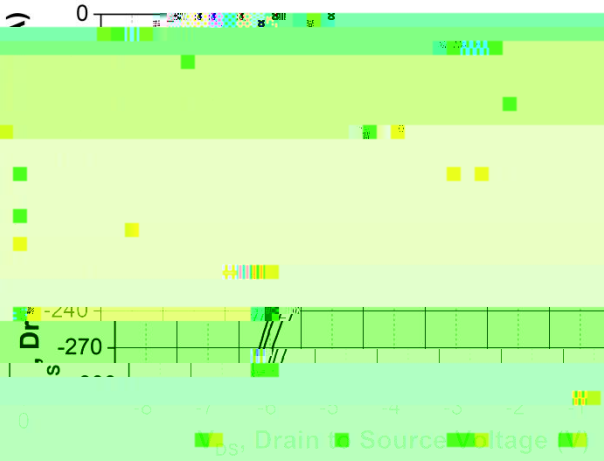
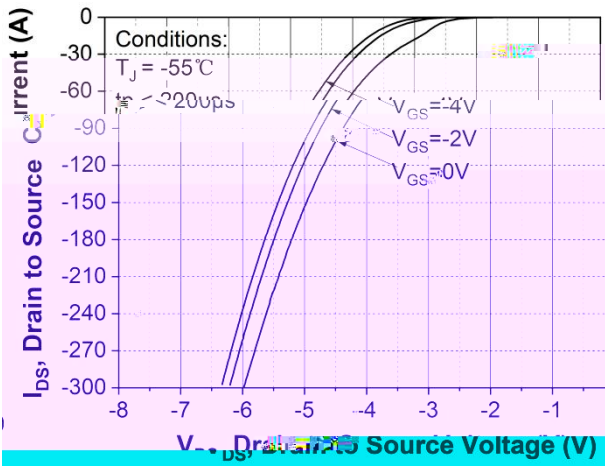
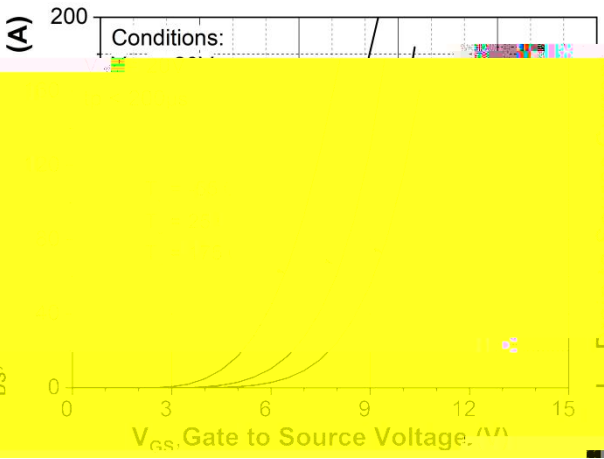


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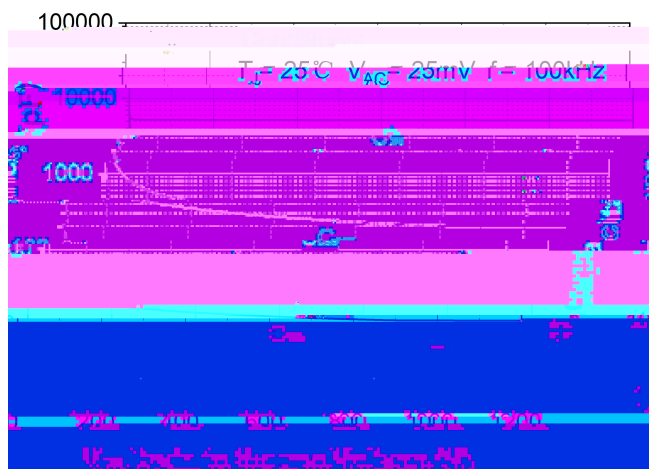
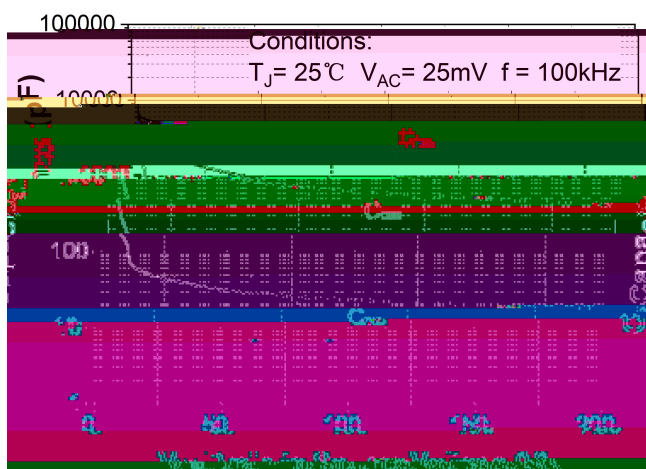
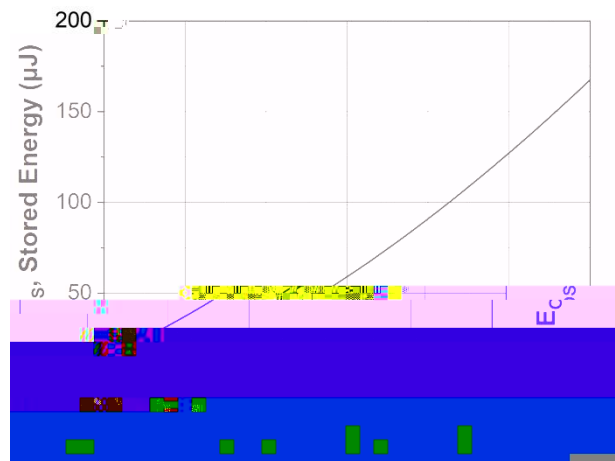
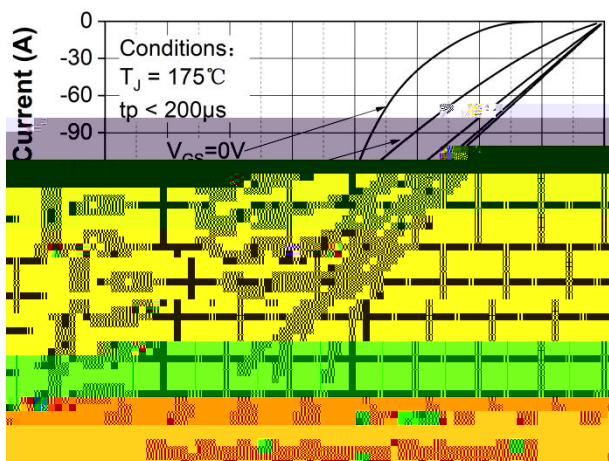
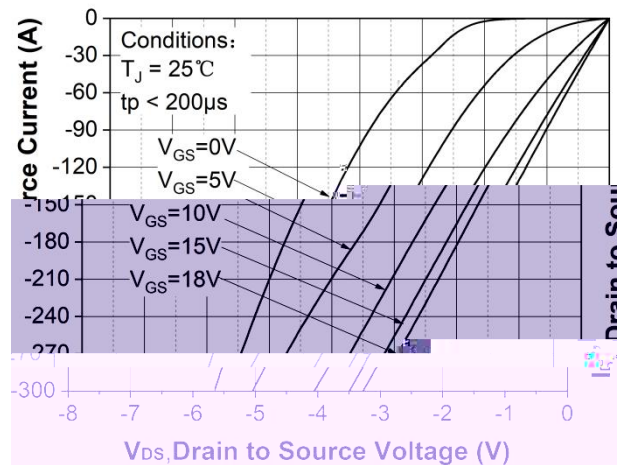
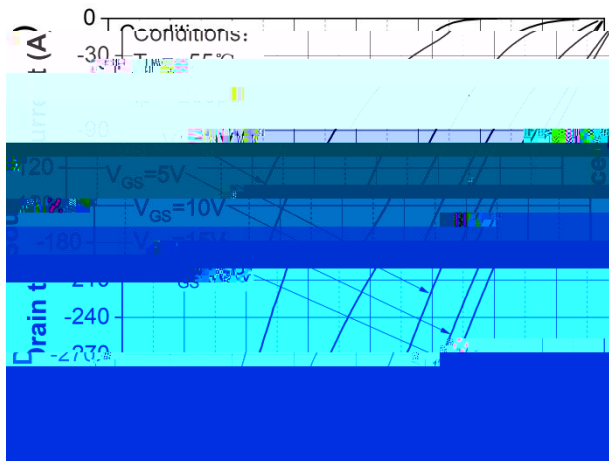
3 Electrical characteristic diagrams



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4 Mechanical parameters

[illegible]

The diagram shows a rectangular area with dimensions A (vertical) and B (horizontal). The area is divided into several regions:

- A large gray rectangle labeled S is located in the upper right portion.
- A blue rectangular region is located in the upper left portion.
- A dark blue rectangular region is located in the lower left portion.
- A dark red rectangular region is located in the lower right portion.

Dimensions are labeled as follows:

- Horizontal dimensions: b_1 (width of the gray region S), b_2 (width of the blue region), and b_3 (width of the dark red region).
- Vertical dimensions: a_1 (height of the dark red region), a_2 (height of the blue region), and a_3 (height of the gray region S).

[illegible]

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Revision history

Document version	Date of release	Document stage	Description of changes
V01_00	2026-06-29	Final	

Attention

RoHS compliance

REACH compliance

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