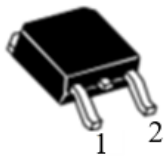
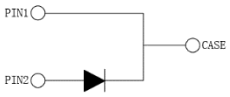
WSRSIC002120NPO

SILICON CARBIDE SCHOTTKY DIODE

Features





- 2A Silicon Carbide Schottky Diode
- Excellent high temperature stability
- Low forward voltage
- High forward surge capability
- 175℃ Operating Junction Temperature
- Reduced temperature dependence

Mechanical Data

- Case: TO-252-2L

Absolute Maximum Ratings（Tc=25℃ Unless otherwise specified）

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	1200	V
Surge Peak Reverse Voltage	V_{RSM}	1200	V
DC Blocking Voltage	V_R	1200	V
Maximum Average Forward Rectified Current Tc=166℃	I_F	2	A
Maximum Average Forward Rectified Current Tc=135℃	I_F	5	A
Maximum Average Forward Rectified Current Tc=25℃	I_F	10	A
Surge(Non-Repetitive)Forward Current @ Tp=10ms Half Sine Wave TC=25℃	I_{FSM}	18	A
Power Dissipation T_C=25℃	P_{tot}	58.8	W
Thermal Resistance(between Junction and Case)	$R_{\theta(J-C)}$	2.55（Typ.）	℃/W
Junction and Storage Temperature	T_J T_{STG}	-55 ~ +175	℃

Electronics Characteristics（Tc=25℃ Unless otherwise specified）

Parameter	Symbol	Typ.	Max.	Unit
Maximum Instantaneous Forward Voltage @I_F=2A T_J=25℃ Maximum Instantaneous Forward Voltage @I_F=2A T_J=175℃	V_F	1.36 1.9	1.8 /	V
Total Capacitance @ f=1MHZ T_J=25℃ V_R=0V Total Capacitance @ f=1MHZ T_J=25℃ V_R=400V Total Capacitance @ f=1MHZ T_J=25℃ V_R=800V	C	148 11 8	/	pF
Total Capacitive Charge @ V_R=800V	Q_C	11.2	/	nC
Reverse leakage current @V_R=1200V T_J=25℃ Reverse leakage current @V_R=1200V T_J=175℃	I_R	1 8	20 /	μA

Note: The above typical parameters or typical characteristics are only indicative and do not make specific guarantees. If detailed values are required, additional communication and provision are required.

Typical Characteristics

Fig.1-Forward Characteristics

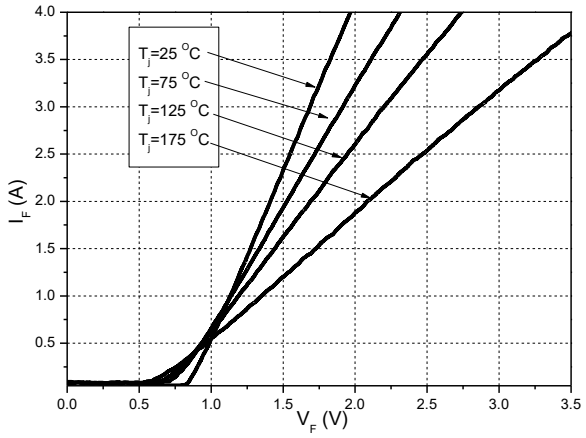


Fig.2-Reverse Characteristics

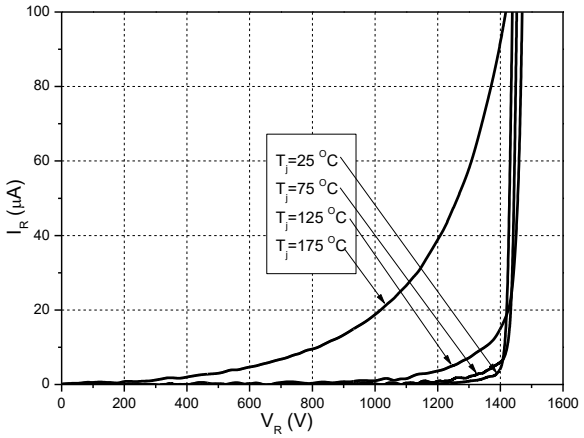


Fig.3-Total Capacitance Charge VS Reverse Voltage

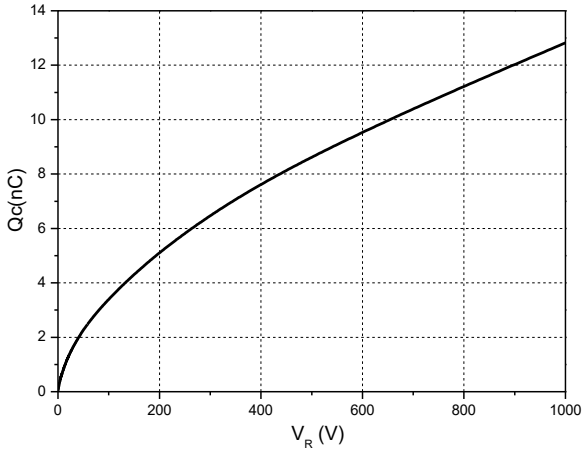
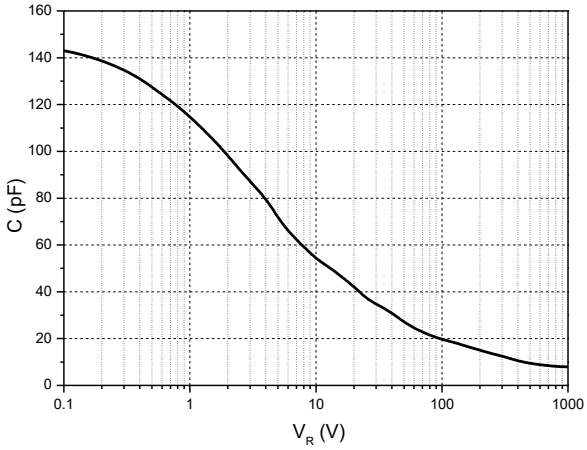
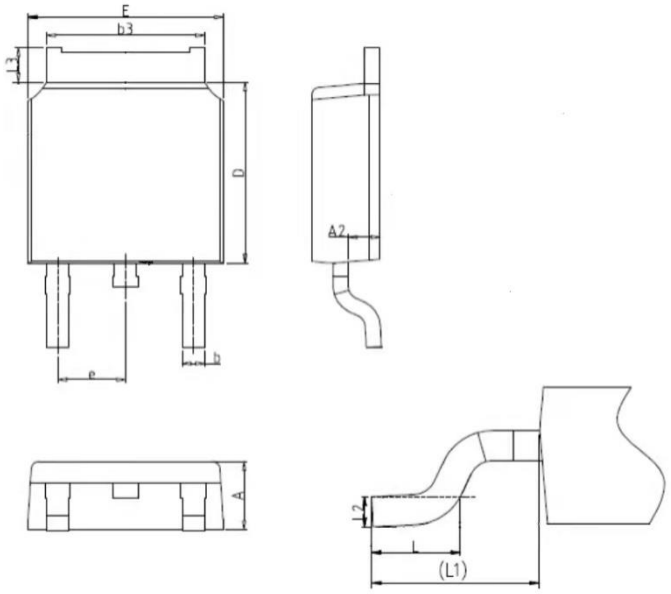


Fig.4-Capacitance VS Reverse Voltage



Outline Drawing

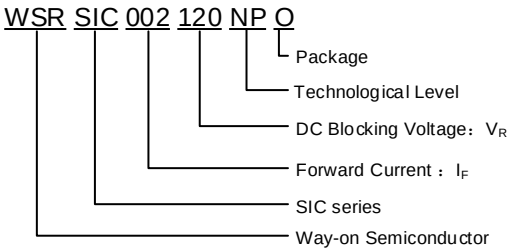
SYMBOL	MM	
	MIN	MAX
A	2.20	2.40
A2	0.97	1.17
b	0.65	0.90
b3	5.20	5.46
D	5.7	6.22
E	6.30	6.73
e	2.1	2.5
L	1.38	1.75
L1	2.90REF	
L2	0.45	0.55
L3	0.88	1.35



Marking Code

Part Number	WSRSIC002120NPO
Marking Code	W002120NP5

Part Number System



Package Information

2500pcs/Reel

Contact Information

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Product Specification Statement

The product specification aims to provide users with a reference regarding various product parameters, performance, and usage. It presents certain aspects of the product's performance in graphical form and is intended solely for users to select product and make product comparisons, enabling users to better understand and evaluate the characteristics and advantages of the product. It does not constitute any commitment, warranty, or guarantee.

The product parameters described in the product specification are numerical values, characteristics, and functions obtained through actual testing or theoretical calculations of the product in an independent or ideal state. Due to the complexity of product applications and variations in test conditions and equipment, there may be slight fluctuations in parameter test values. WAYON shall not guarantee that the actual performance of the product when installed in the customer's system or equipment will be entirely consistent with the product specification, especially concerning dynamic parameters. It is recommended that users consult with professionals for product selection and system design. Users should also thoroughly validate and assess whether the actual parameters and performance when installed in their respective systems or equipment meet their requirements or expectations. Additionally, users should exercise caution in verifying product compatibility issues, and WAYON assumes no responsibility for the application of the product.

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