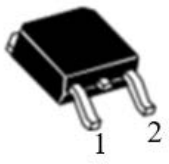
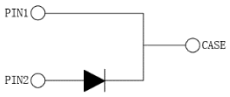
WSRSIC002120NPO

SILICON CARBIDE SCHOTTKY DIODE

Features





- 2A Silicon Carbide Schottky Diode
- Excellent high temperature stability
- Low forward voltage
- High forward surge capability
- 150℃ 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=141℃	I_F	2	A
Surge(Non-Repetitive)Forward Current @ Tp=10ms Half Sine Wave TC=25℃	I_{FSM}	22	A
Power Dissipation T_C=25℃	P_{tot}	49	W
Thermal Resistance(between Junction and Case)	$R_{\theta(J-C)}$	2.55 （Typ.）	℃/W
Junction and Storage Temperature	T_J T_{STG}	-40 ~ +150	℃

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=150℃	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=150℃	I_R	1 8	20 /	μA

Typical Characteristics

Fig.1-Forward Characteristics

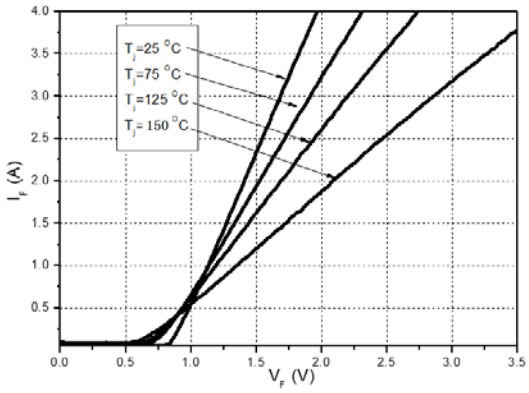


Fig.2-Reverse Characteristics

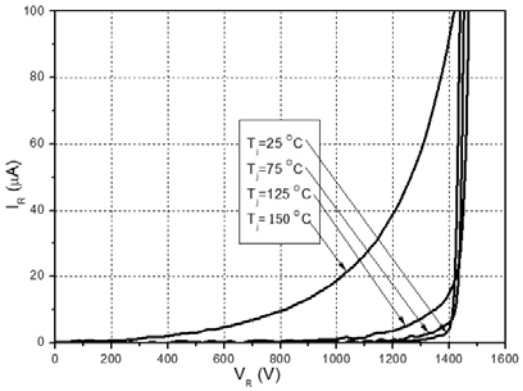


Fig.3-Total Capacitance Charge VS Reverse Voltage

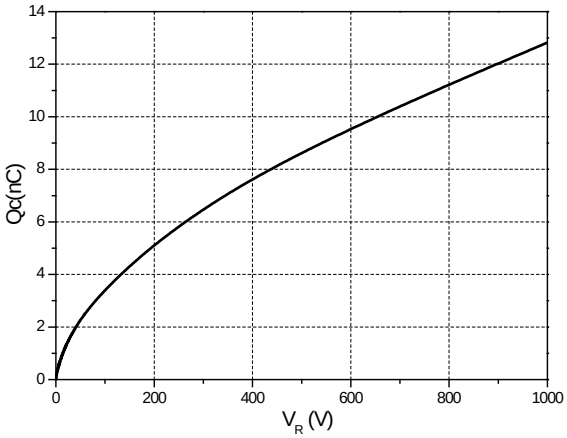
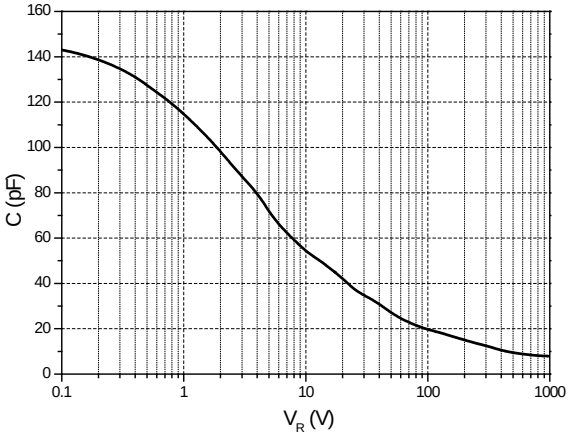
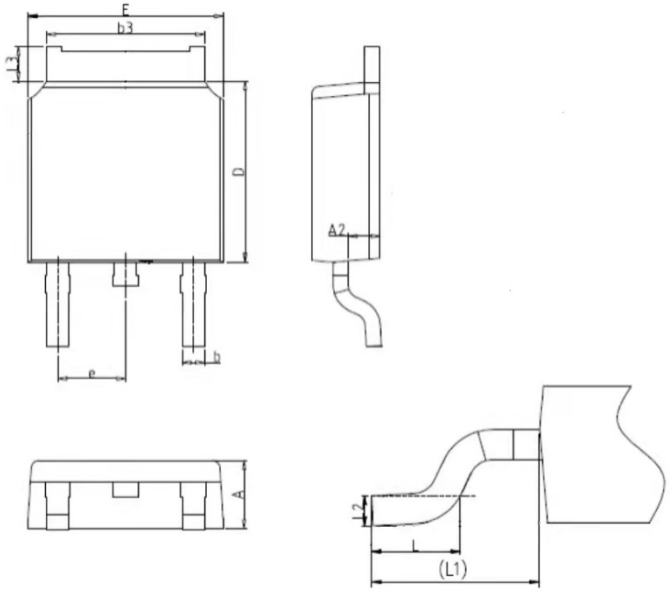


Fig.4-Capacitance VS Reverse Voltage



Outline Drawing

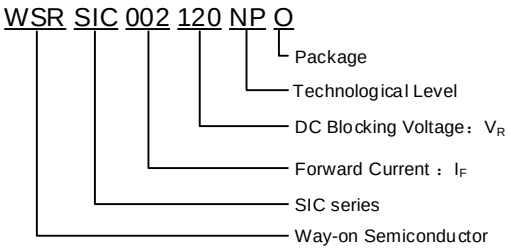
SYMBOL	MM	
	MIN	MAX
A	2.20	2.40
A2	0.97	1.17
b	0.65	0.90
b3	5.20	5.46
D	5.7	6.22
E	6.30	6.73
e	2.1	2.5
L	1.38	1.75
L1	2.90REF	
L2	0.45	0.55
L3	0.88	1.35



Marking Code

Part Number	WSRSIC002120NPO
Marking Code	W002120NP5

Part Number System



Package Information

2500pcs/Reel

Contact Information

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Specifications are subject to change without notice.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
Users should verify actual device performance in their specific applications.