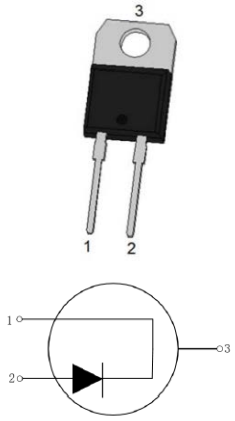
WSRSIC010120NNI

SILICON CARBIDE SCHOTTKY DIODE

Features

- 10A 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-220AC insulated
  --Ceramic Package Provides 2.5KV Isolation
  --Electrically Isolated Package

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 at TC=150℃	I_F	10	A
Surge(Non-Repetitive)Forward Current @ T_p=10ms Half Sine Wave T_C=25℃	I_{FSM}	100	A
Power Dissipation T_C=25℃	P_{tot}	93.7	W
Thermal Resistance(between Junction and Case)	$R_{\theta(J-C)}$	1.6（Typ.）	℃/W
Junction and Storage Temperature	T_J T_{STG}	-40 ~ +175	℃

Electronics Characteristics（Tc=25℃ Unless otherwise specified）

Parameter	Symbol	Typ.	Max.	Unit
Maximum Instantaneous Forward Voltage @I_F=10A T_J=25℃ Maximum Instantaneous Forward Voltage @I_F=10A T_J=175℃	V_F	1.4 2	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	705 49 41	/	pF
Total Capacitive Charge @ V_R=800V	Q_C	41	/	nC
Reverse leakage current @V_R=V_{RWM} T_J=25℃ Reverse leakage current @V_R=V_{RWM} T_J=175℃	I_R	1 15	100 /	μA

Typical Characteristics

Fig.1-Forward Characteristics

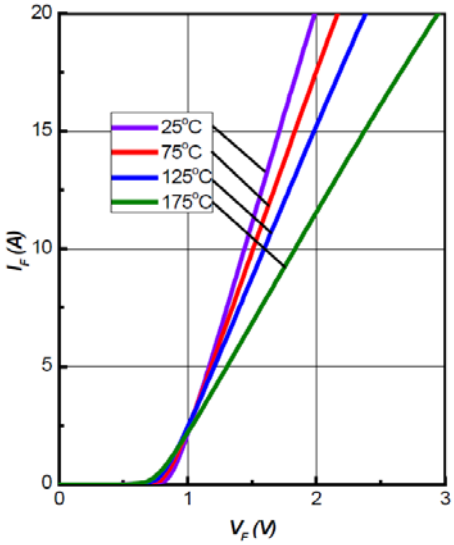


Fig.2-Reverse Characteristics

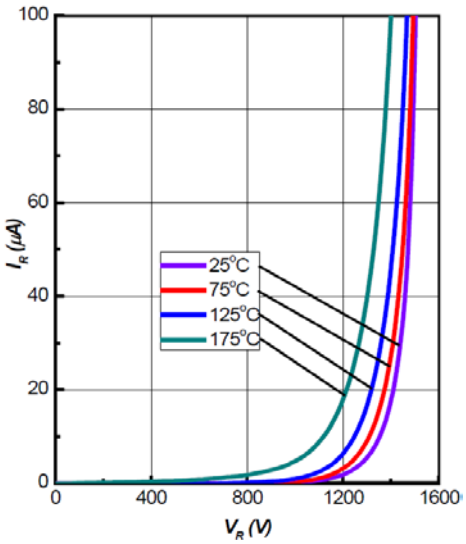


Fig.3-Total Capacitance Charge VS Reverse Voltage

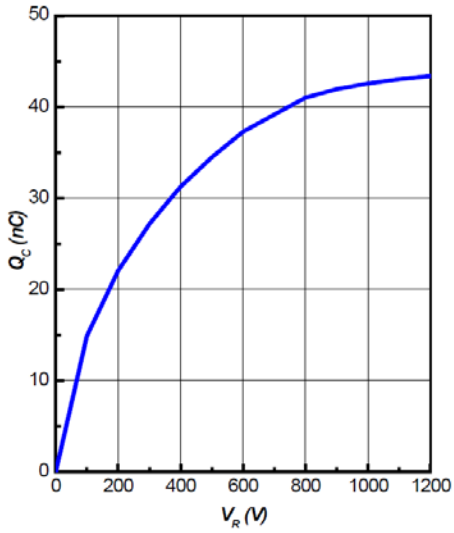
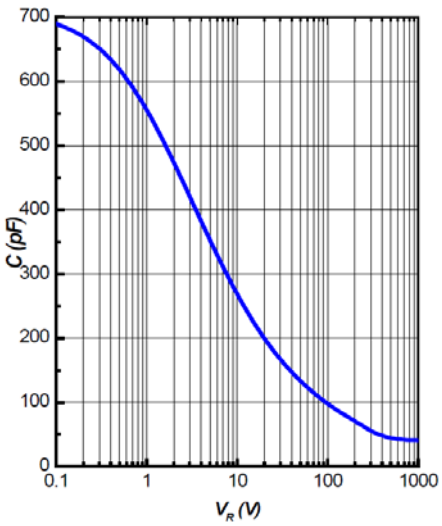
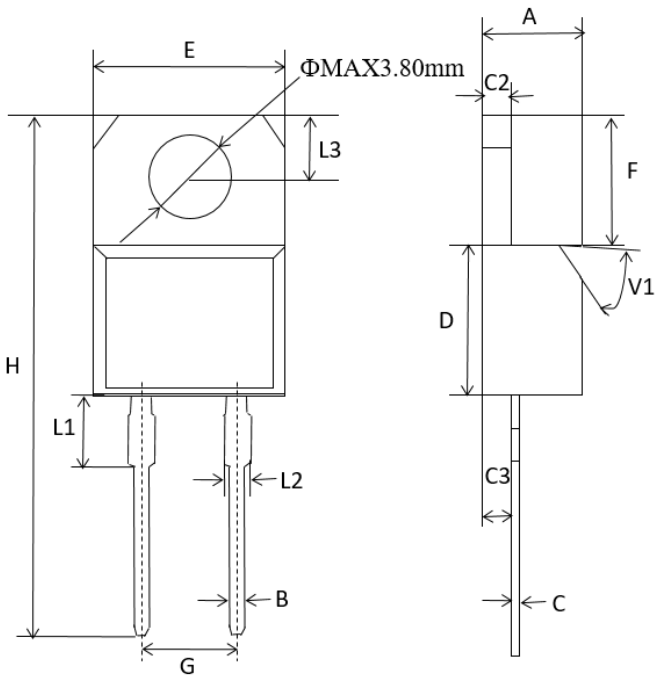


Fig.4-Capacitance VS Reverse Voltage



Outline Drawing

SYMBOL	MM		
	MIN	NOM	MAX
A	4.1		4.7
B	0.6		0.95
C	0.4		0.75
C2	1.1		1.45
C3	2.3		2.75
D	8.5		9.8
E	9.65		10.65
F	6.1		7.2
G		5.08	
H	27.5		29.9
L1		3.75	
L2	1.1		1.7
L3	2.5		2.95
V1		45°	



Marking Code

Part Number	WSRSIC010120NNI
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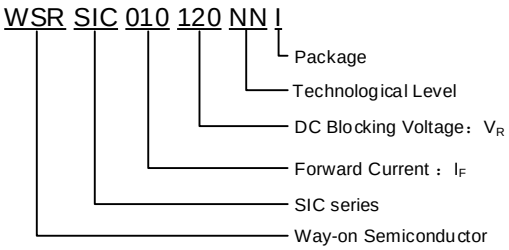
Part Number System



Package Information

Quantity per tube: 50pcs

Contact Information

No.1001, Shiwan(7) Road, Pudong District, Shanghai, P.R.China.201207
Tel: 021-68969993 Fax: 86-21-50757680 Email: market@way-on.com
WAYON website: **http://www.way-on.com**
For additional information, please contact your local Sales Representative.

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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.