

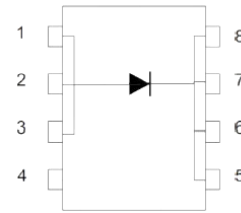
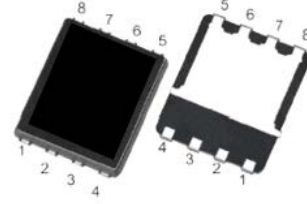
SILICON CARBIDE SCHOTTKY DIODE

Features

- 6A Silicon Carbide Schottky Diode
- Excellent high temperature stability
- Low forward voltage
- High forward surge capability
- 150°C Operating Junction Temperature
- Reduced temperature dependence

Mechanical Data

- Case: PDFN5*6



Absolute Maximum Ratings (T_c=25°C Unless otherwise specified)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V _{RRM}	650	V
Surge Peak Reverse Voltage	V _{RSM}	650	V
DC Blocking Voltage	V _R	650	V
Maximum Average Forward Rectified Current T _c =139°C	I _F	6	A
Surge(Non-Repetitive)Forward Current @ T _p =10ms Half Sine Wave T _c =25°C	I _{FSM}	40	A
Power Dissipation T _c =25°C	P _{tot}	104	W
Thermal Resistance(between Junction and Case)	R _{θ(J-C)}	1.2 (Typ.)	°C/W
Junction and Storage Temperature	T _J T _{STG}	-40 ~ +150	°C

Electronics Characteristics (Tc=25°C Unless otherwise specified)

Parameter	Symbol	Typ.	Max.	Unit
Maximum Instantaneous Forward Voltage @ $I_F=6A$ $T_J=25^\circ C$	V_F	1.43	1.75	V
Maximum Instantaneous Forward Voltage @ $I_F=6A$ $T_J=150^\circ C$		1.9	/	
Total Capacitance @ $f=1MHz$ $T_J=25^\circ C$ $V_R=0V$	C	273	/	pF
Total Capacitance @ $f=1MHz$ $T_J=25^\circ C$ $V_R=200V$		26		
Total Capacitance @ $f=1MHz$ $T_J=25^\circ C$ $V_R=400V$		24		
Total Capacitive Charge @ $V_R=400V$	Q_C	13.02	/	nC
Reverse leakage current @ $V_R=V_{RWM}$ $T_J=25^\circ C$	I_R	1	40	μA
Reverse leakage current @ $V_R=V_{RWM}$ $T_J=150^\circ C$		8	/	

Typical Characteristics

Fig.1-Forward Characteristics

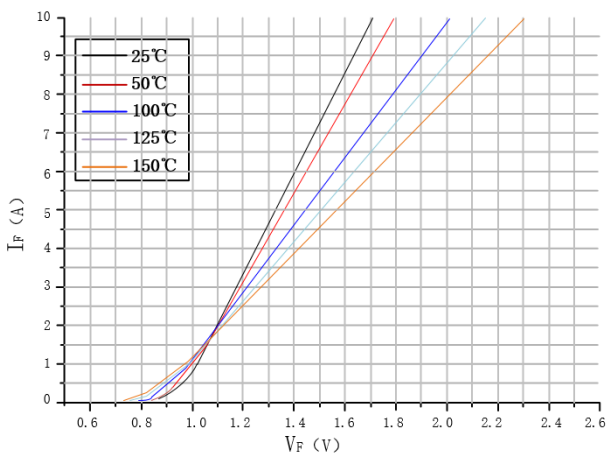
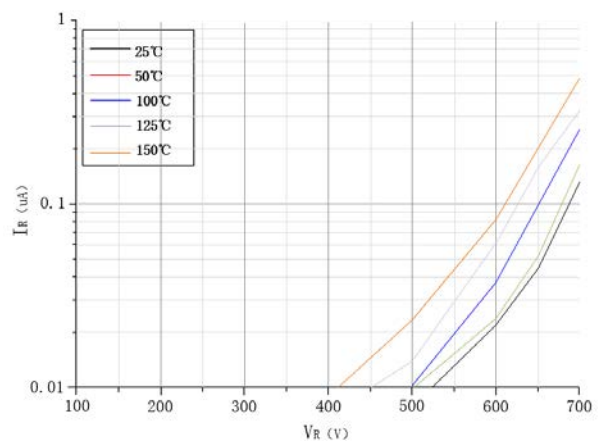


Fig.2-Reverse Characteristics



Typical Characteristics

Fig.3-Total Capacitance Charge VS Reverse Voltage

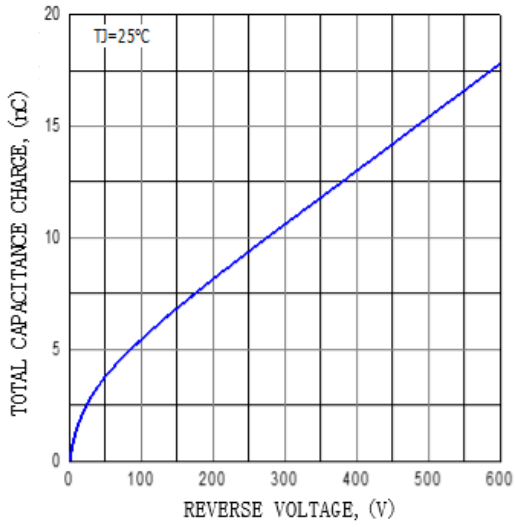
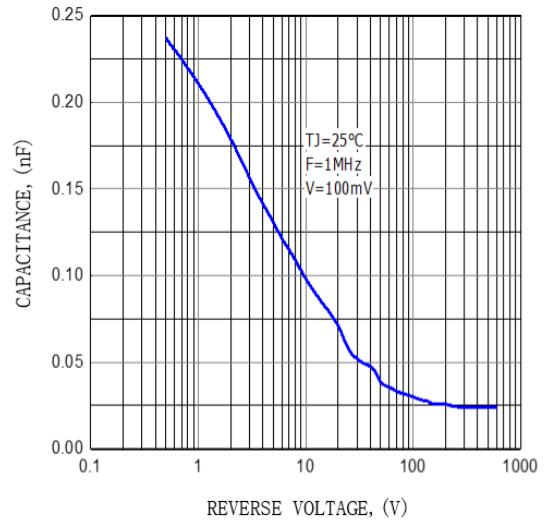
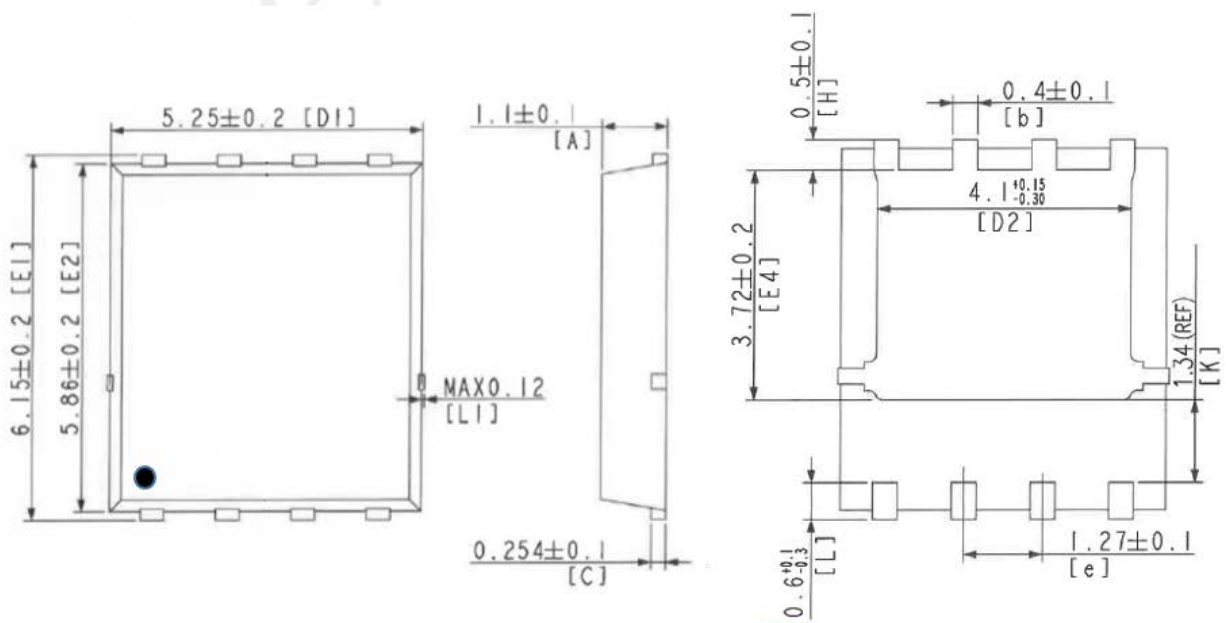


Fig.4-Capacitance VS Reverse Voltage



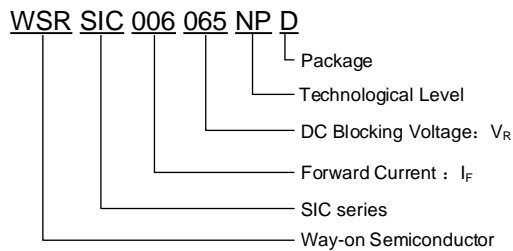
Outline Drawing



Marking Code

Part Number	WSRSIC006065NPD
Marking Code	W006065NPD

Part Number System



Package Information

3000pcs/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.*