



WSRSIC006065NPE

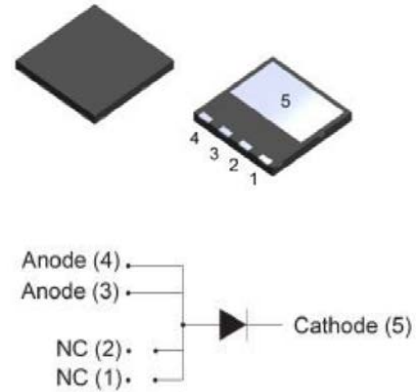
SILICON CARBIDE SCHOTTKY DIODE

Features

- 6A Silicon Carbide Schottky Diode
- Excellent high temperature stability
- Low forward voltage
- High forward surge capability
- 175°C Operating Junction Temperature
- Reduced temperature dependence

Mechanical Data

- Case: DFN8*8-4L



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 at T _c =159°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}	100	W
Thermal Resistance(between Junction and Case)	R _{θ(J-C)}	1.5 (Typ.)	°C/W
Junction and Storage Temperature	T _J T _{STG}	-55~ +175	°C

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

Parameter	Symbol	Typ.	Max.	Unit
Maximum Instantaneous Forward Voltage @ I _F =6A T _J =25°C	V _F	1.38	1.75	V
Maximum Instantaneous Forward Voltage @ I _F =6A T _J =175°C		1.7	/	

Total Capacitance @ f=1MHZ T _J =25°C V _R =0V		386		
Total Capacitance @ f=1MHZ T _J =25°C V _R =200V	C	37	/	pF
Total Capacitance @ f=1MHZ T _J =25°C V _R =400V		29		
Total Capacitive Charge @ V _R =400V	Q _C	19	/	nC
Reverse leakage current @ V _R =V _{RWM} T _J =25°C		1	40	
Reverse leakage current @ V _R =V _{RWM} T _J =175°C	I _R	8	/	μA

Typical Characteristics

Fig.1-Forward Characteristics

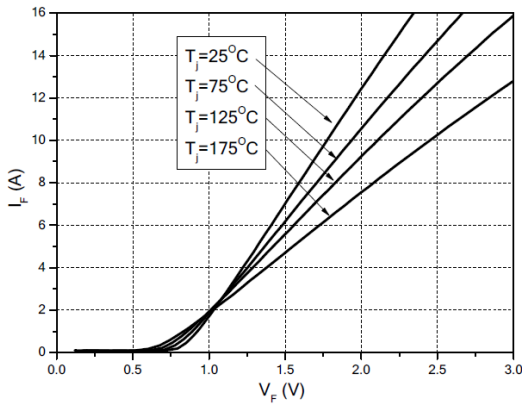


Fig.2-Reverse Characteristics

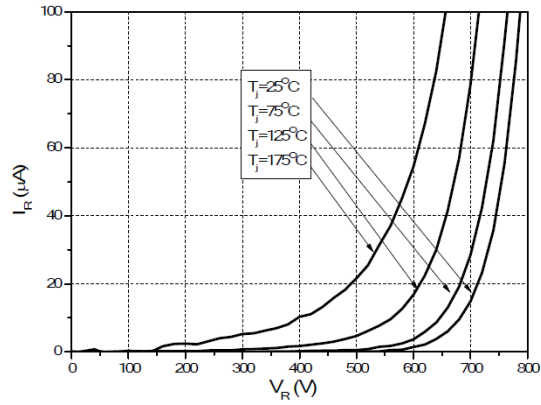


Fig.3-Total Capacitance Charge VS Reverse Voltage

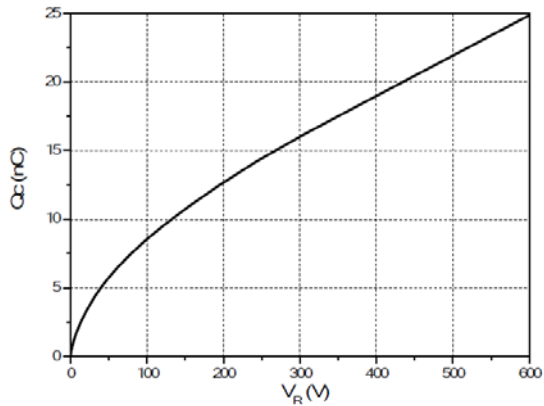
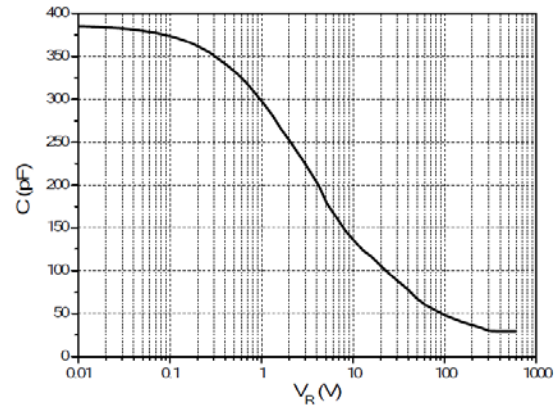
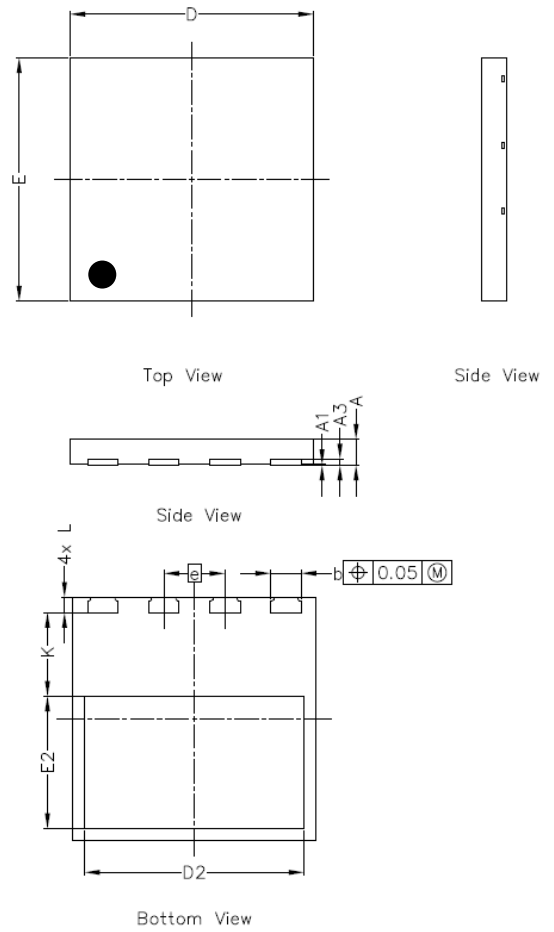


Fig.4-Capacitance VS Reverse Voltage



Outline Drawing

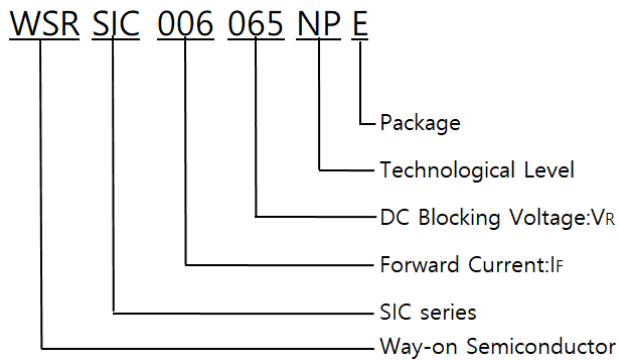
SYMBOL	MM		
	MIN	NOM	MAX
A	0.750	0.900	1.000
A1	-	-	0.050
A3	0.100	0.203	0.300
D	7.900	8.000	8.100
E	7.900	8.000	8.100
e	2.00BSC		
b	0.900	1.000	1.100
D2	7.100	7.200	7.300
E2	4.250	4.350	4.450
L	0.400	0.500	0.600
K	2.650	2.750	2.850



Marking Code

Part Number	WSRSIC006065NPE
Marking Code	W006065NPE

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.*