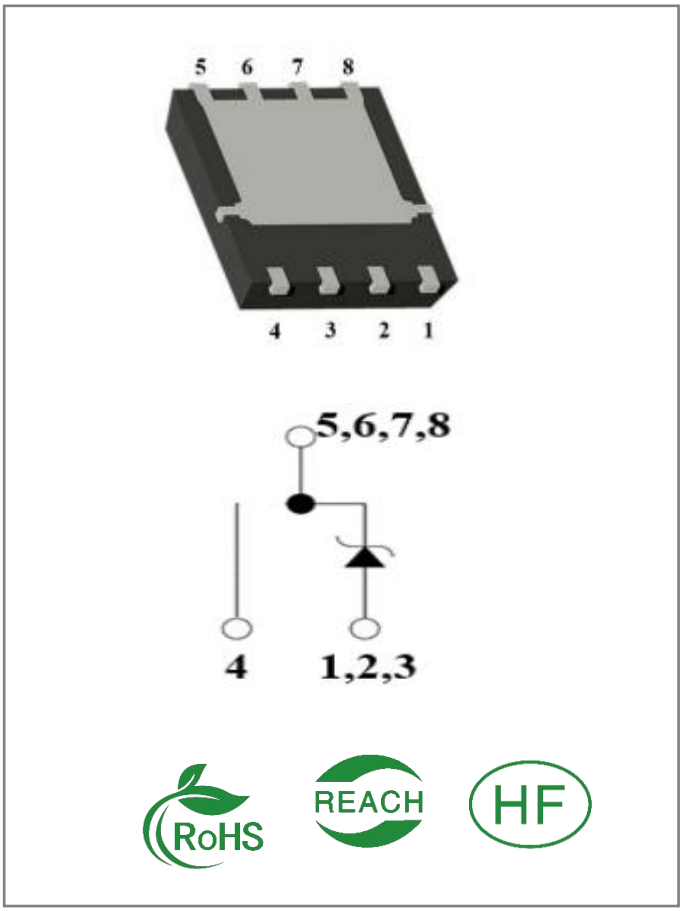
VRRM	IF (TC≤135℃)	QC
650V	6A	9nC



Applications:

- Switch Mode Power Supplies
- Power Factor Correction
- Motor drive, PV Inverter, Wind Power Station

Features:

- Zero Reverse Recovery Current
- Zero Forward Recovery Voltage
- Positive Temperature Coefficient on VF
- Temperature-independent Switching
- 175°C Operating Junction Temperature

Benefits:

- Replace Bipolar with Unipolar Device
- Reduction of Heat Sink Size
- Parallel Devices Without Thermal Runaway
- Essentially No Switching Losses

Ordering Information

Part Number	Package	Marking	Packing	Qty.
RSS04065G	DFN5*6	RSS04065G	Tape&reel	5000 PCS

Maximum Ratings (TJ= 25℃ unless otherwise specified)

Symbol	Parameter	Value	Unit	Test Conditions	Note
VRRM	Repetitive Peak Reverse Voltage	650	V	TC = 25℃	
VRSM	Surge Peak Reverse Voltage	650	V	TC = 25℃	
VR	DC Blocking Voltage	650	V	TC = 25℃	
IF	Forward Current	136 4	A	TC ≤ 25℃ TC ≤ 135℃ TC ≤ 148℃	
IFSM	Non-Repetitive Forward Surge Current	30 20	A	TC = 25℃, tp = 10ms, Half Sine Wave TC = 110℃, tp = 10ms, Half Sine Wave	
IFRM	Repetitive Peak Forward Surge Current	20	A	TC = 25℃, tp = 10ms, Half Sine Wave	
Ptot	Power Dissipation	50	W	TC = 25℃	
TC	Maximum Case Temperature	148	℃		
TJ,TSTG	Operating Junction and Storage Temperature	-55 to175	℃		

Electrical Characteristics (TJ= 25℃ unless otherwise specified)

Symbol	Parameter	Typ.	Max.	Unit	Test Conditions	Note
VF	Forward Voltage	1.45 1.7	1.7 -	V	IF = 4A, TJ = 25℃ IF = 4A, TJ = 175℃	
IR	Reverse Current	2 10	50 -	μA	VR = 650V, TJ = 25℃ VR = 650V, TJ = 175℃	
C	Total Capacitance	230 24 20	/	pF	VR = 1V, TJ = 25℃, f = 1MHz VR = 200V, TJ = 25℃, f = 1MHz VR = 400V, TJ = 25℃, f = 1MHz	
QC	Total Capacitive Charge	9	/	nC	VR =400V,	

Thermal Characteristics (TJ= 25℃ unless otherwise specified)

Symbol	Parameter	Typ.	Unit	Note
RθJC	Thermal Resistance from Junction to Case	2.9	℃/W	

Typical Feature Curve

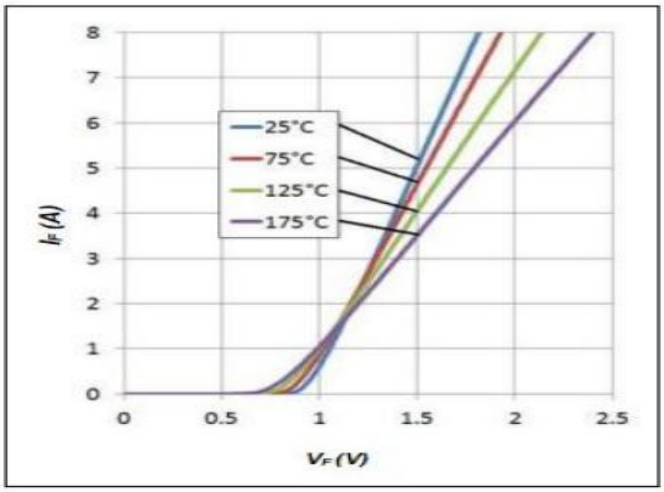


Figure1. ForwardCharacteristics

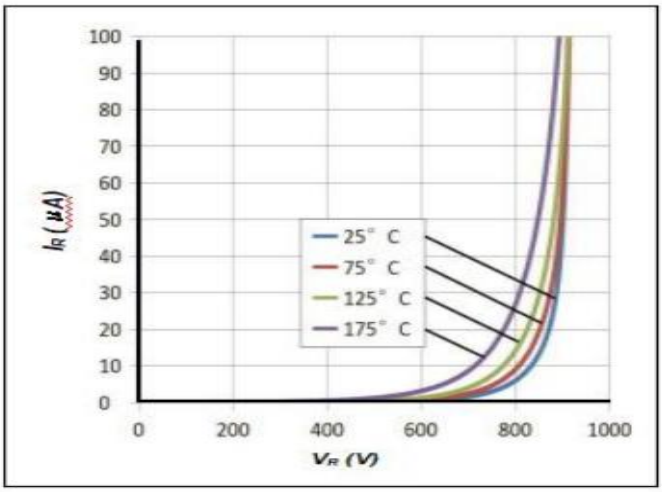


Figure2. ReverseCharacteristics

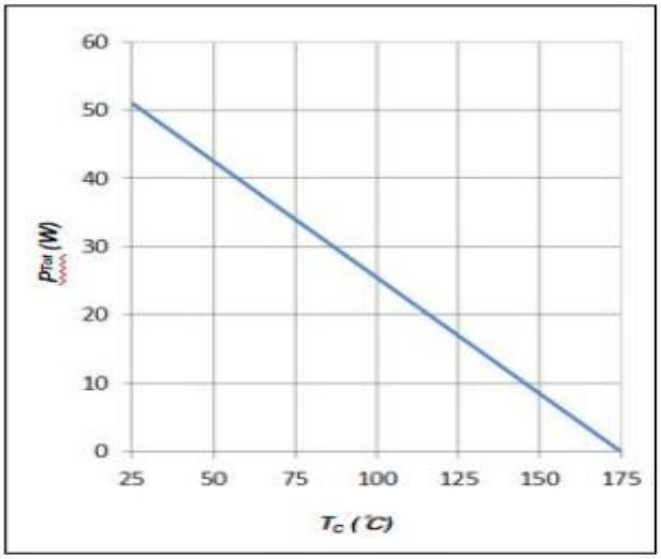


Figure 3. Power Derating

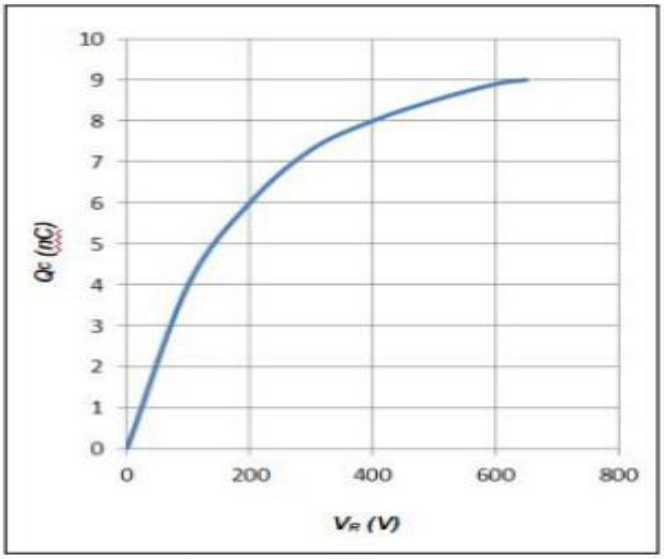


Figure 4. Total Capacitive Charge vs. Reverse Voltage

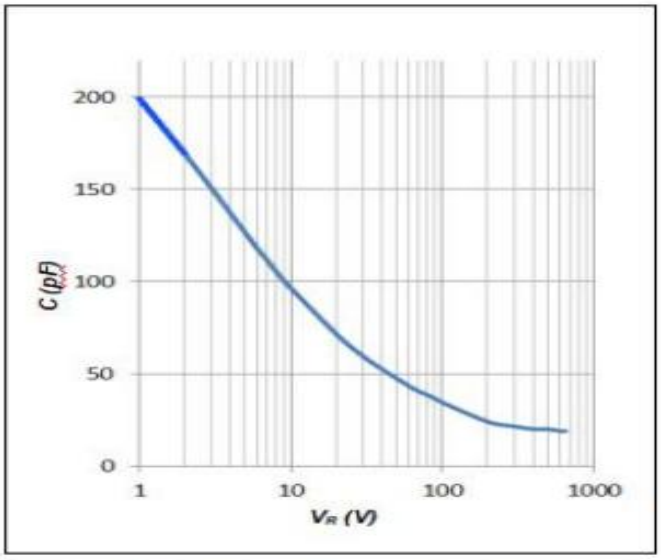


Figure 5. Total Capacitance vs. Reverse Voltage

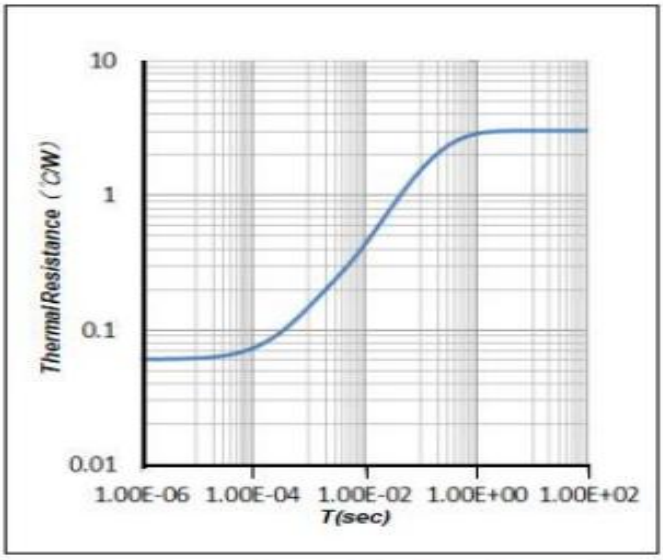
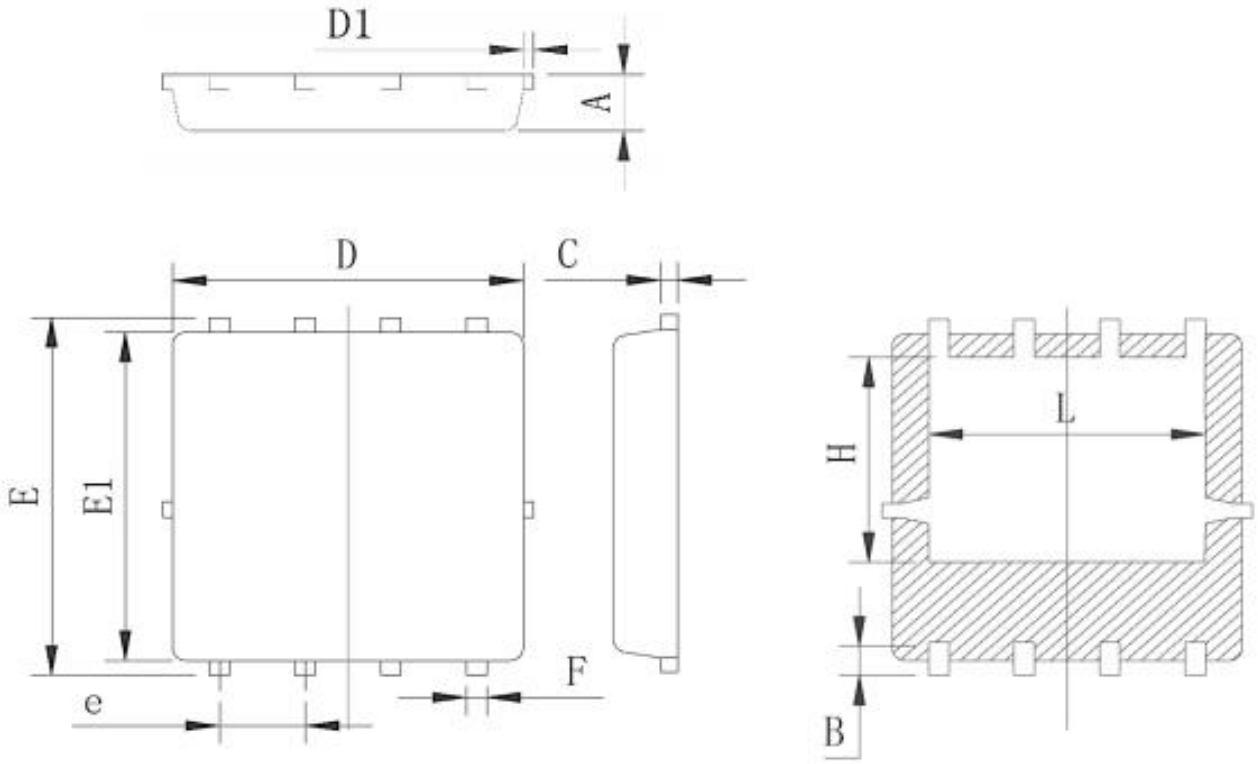


Figure 6. Transient Thermal Impedance

Package outline drawing(DFN5*6 Unit: mm)



Symbol	Min	Typ	Max
A	0.90	0.95	1.00
B	0.48	0.58	0.68
C	0.20	0.254	0.30
D	5.00	5.20	5.40
D1			0.15
E	5.90	6.05	6.20
E1	5.40	5.55	5.70
e	1.22	1.27	1.32
F	0.25	0.30	0.35
H	3.27	3.47	3.67
L	3.80	4.00	4.20

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