

VRRM	IF (TC≤135℃)	QC
650V	9A	18nC

Applications:

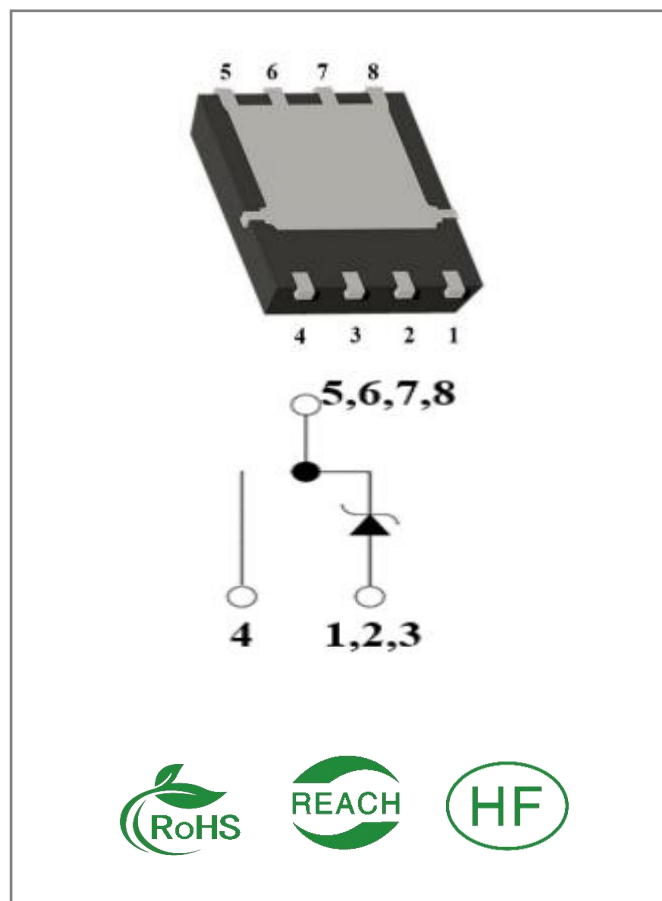
- Switch Mode Power Supplies
- Power Factor Correction
- Motor drive, PV Inverter, Wind Power Station

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.
RSS08065G	DFN5*6	RSS08065G	Tape&reel	5000 PCS

Maximum Ratings (T_J= 25°C unless otherwise specified)

Symbol	Parameter	Value	Unit	Test Conditions	Note
VRRM	Repetitive Peak Reverse Voltage	650	V	TC = 25°C	
VRSM	Surge Peak Reverse Voltage	650	V	TC = 25°C	
VR	DC Blocking Voltage	650	V	TC = 25°C	
IF	Forward Current	19 9 8	A	TC ≤ 25°C TC ≤ 135°C TC ≤ 140°C	
IFSM	Non-Repetitive Forward Surge Current	87 72	A	TC = 25°C, tp = 10ms, Half Sine Wave TC = 110°C, tp = 10ms, Half Sine Wave	
IFRM	Repetitive Peak Forward Surge Current	68	A	TC = 25°C, tp = 10ms, Half Sine Wave	
Ptot	Power Dissipation	63	W	TC = 25°C	
TC	Maximum Case Temperature	140	°C		
TJ,TSTG	Operating Junction and Storage Temperature	-55 to 175	°C		

Electrical Characteristics (T_J= 25°C unless otherwise specified)

Symbol	Parameter	Typ.	Max.	Unit	Test Conditions	Note
VF	Forward Voltage	1.39 1.74	1.6 -	V	IF = 8A, T _J = 25°C IF = 8A, T _J = 175°C	
IR	Reverse Current	6 12	60 -	μA	VR = 650V, T _J = 25°C VR = 650V, T _J = 175°C	
C	Total Capacitance	338 44 43	/	pF	VR = 1V, T _J = 25°C, f = 1MHz VR = 200V, T _J = 25°C, f = 1MHz VR = 400V, T _J = 25°C, f = 1MHz	
QC	Total Capacitive Charge	23	/	nC	VR = 400V,	
Ec	Capacitance Stored Energy	3.7		μJ	VR = 400V,	

Thermal Characteristics (T_J= 25°C unless otherwise specified)

Symbol	Parameter	Typ.	Unit	Note
RθJC	Thermal Resistance from Junction to Case	1.75	°C/W	

Typical Feature Curve

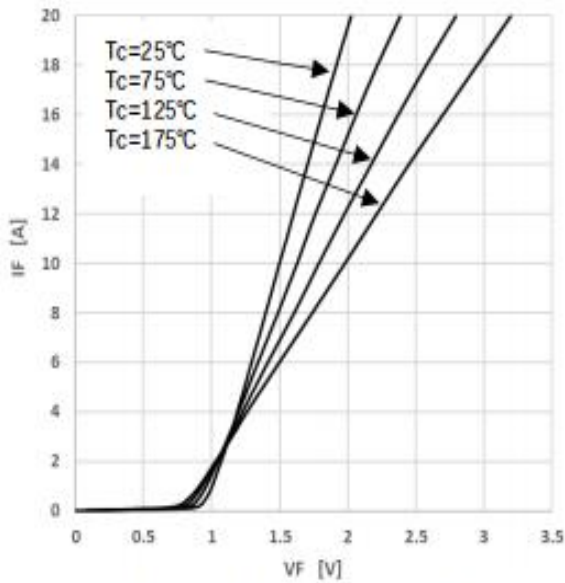


Figure 1 Forward Characteristics

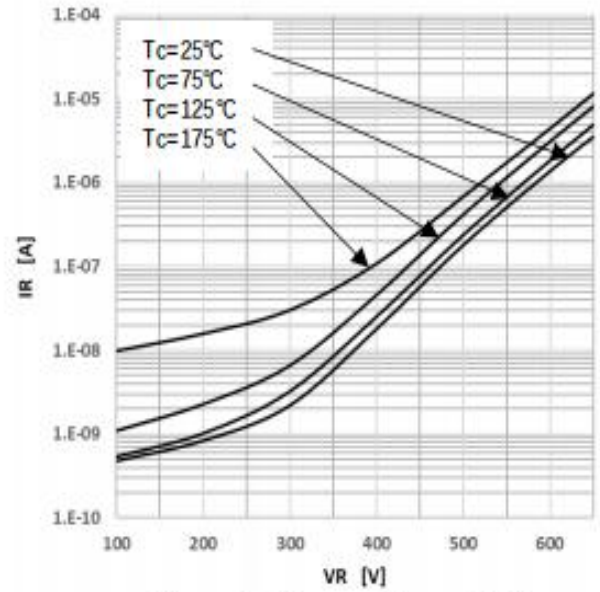


Figure 2 Reverse Characteristics

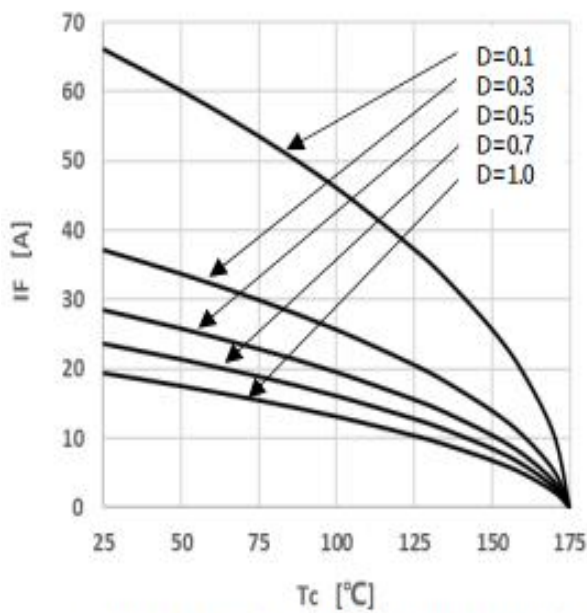


Figure 3 Peak Forward Current Derating

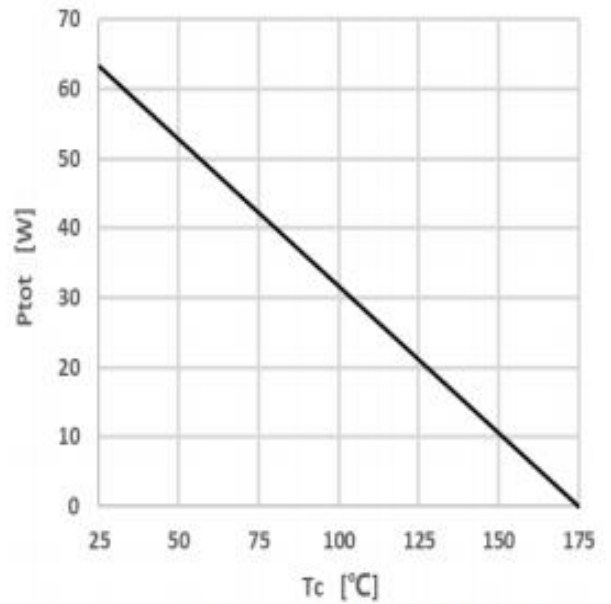


Figure 4 Power Dissipation

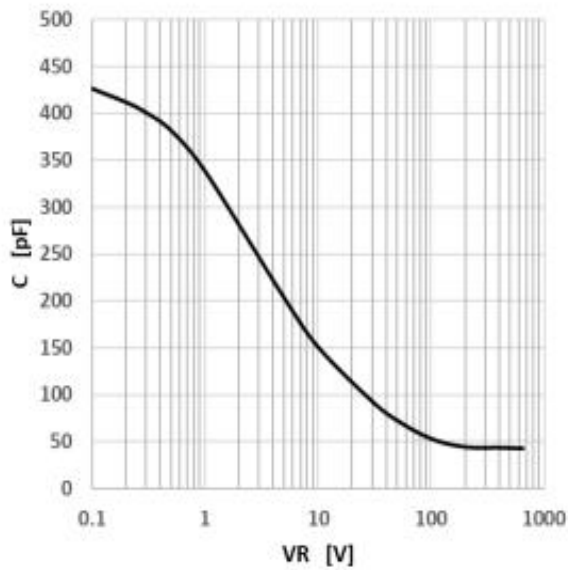


Figure 5 Capacitance vs. Reverse Voltage

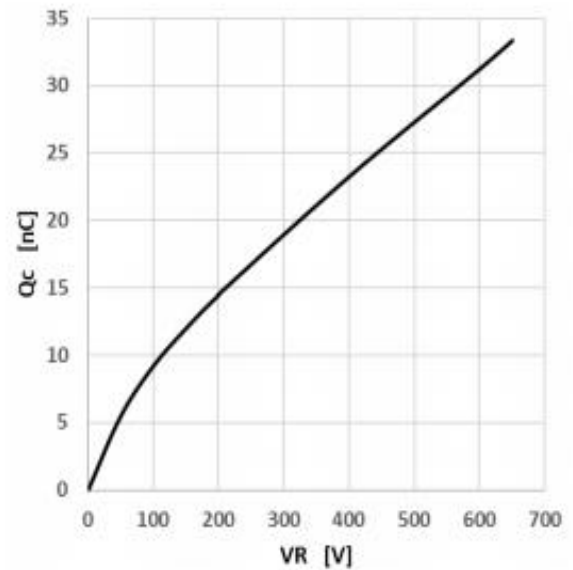


Figure 6 Capacitance Charge vs. Reverse Voltage

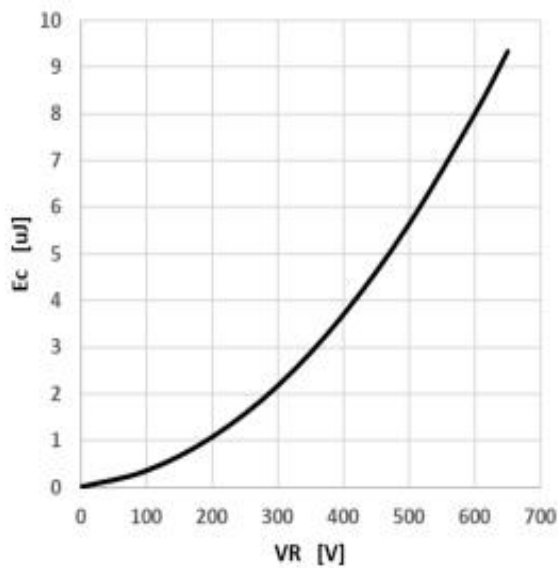


Figure 7 Capacitance Stored Energy

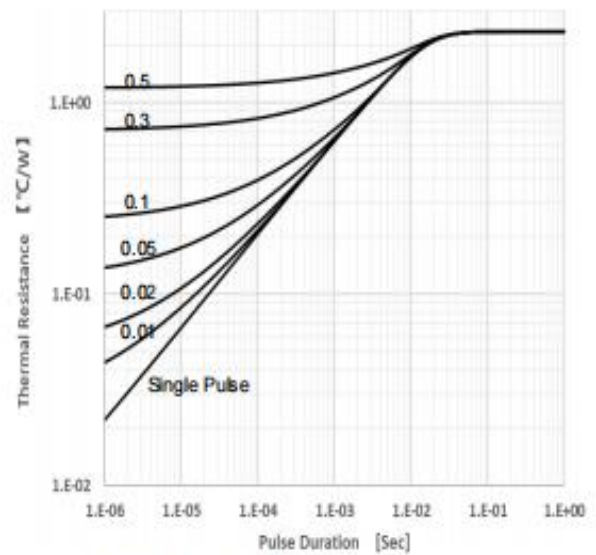
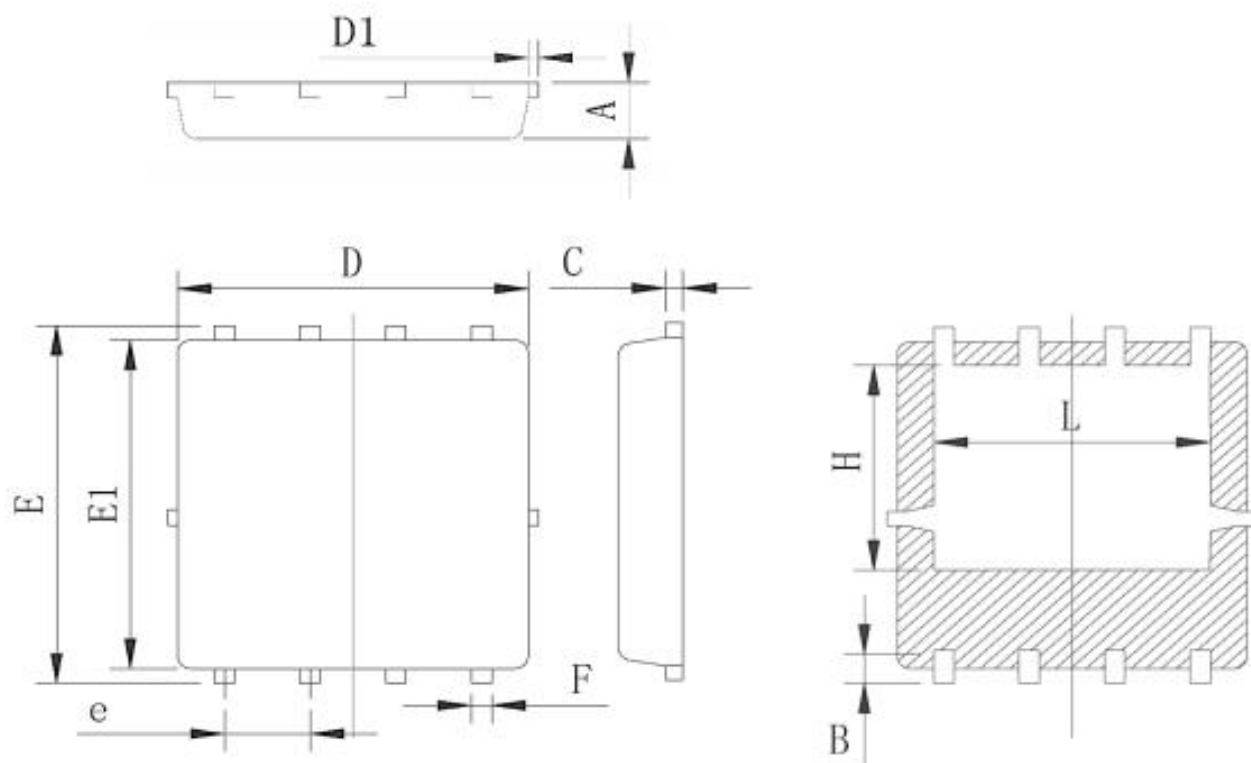


Figure 8 Transient Thermal Impedance

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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