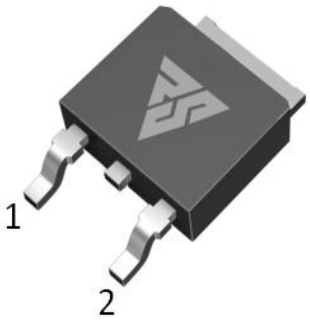
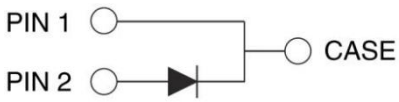
VRRM	IF (TC≤135℃)	QC
650V	15A	30nC





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.
RSS10065D	TO-252	RSS10065D	Tape&reel	2500 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	32 15 10	A	TC ≤ 25℃ TC ≤ 135℃ TC ≤ 154℃	Fig.3
IFSM	Non-Repetitive Forward Surge Current	96 83	A	TC = 25℃, tp = 10ms, Half Sine Wave TC = 110℃, tp = 10ms, Half Sine Wave	
IFRM	Repetitive Peak Forward Surge Current	85	A	TC = 25℃, tp = 10ms, Half Sine Wave	
Ptot	Power Dissipation	127	W	TC = 25℃	Fig.4
TC	Maximum Case Temperature	154	℃		
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	1.37 1.66	1.6 -	V	IF = 10A, TJ = 25℃ IF = 10A, TJ = 175℃	Fig.1
IR	Reverse Current	5 12	60 -	μA	VR = 650V, TJ = 25℃ VR = 650V, TJ = 175℃	Fig.2
C	Total Capacitance	455 57 56	/	pF	VR = 1V, TJ = 25℃, f = 1MHz VR = 200V, TJ = 25℃, f = 1MHz VR = 400V, TJ = 25℃, f = 1MHz	Fig.5
QC	Total Capacitive Charge	30	/	nC	VR =400V,	Fig.6
Ec	Capacitance Stored Energy	4.8		uJ	VR =400V,	Fig.7

Thermal Characteristics (TJ= 25℃ unless otherwise specified)

Symbol	Parameter	Typ.	Unit	Note
RθJC	Thermal Resistance from Junction to Case	1.175	℃/W	Fig.8

Typical Feature Curve

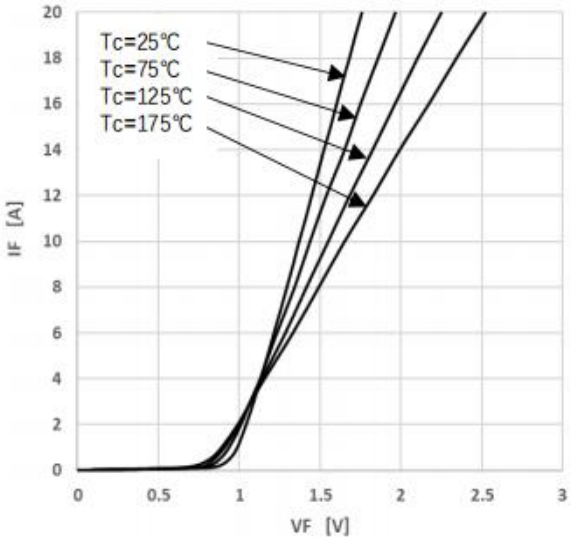


Figure 1 Forward Characteristics

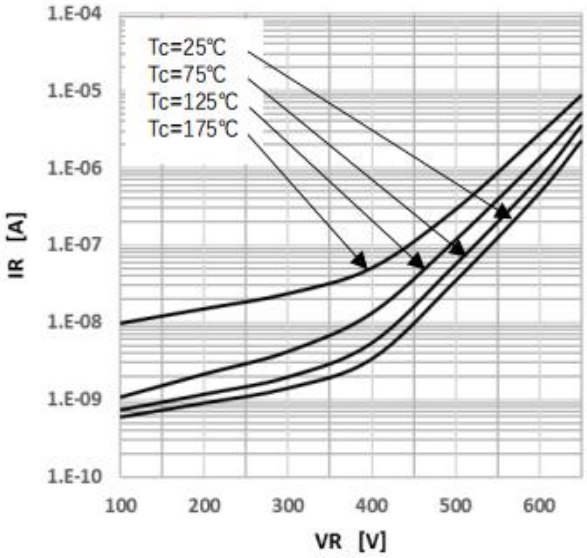


Figure 2 Reverse Characteristics

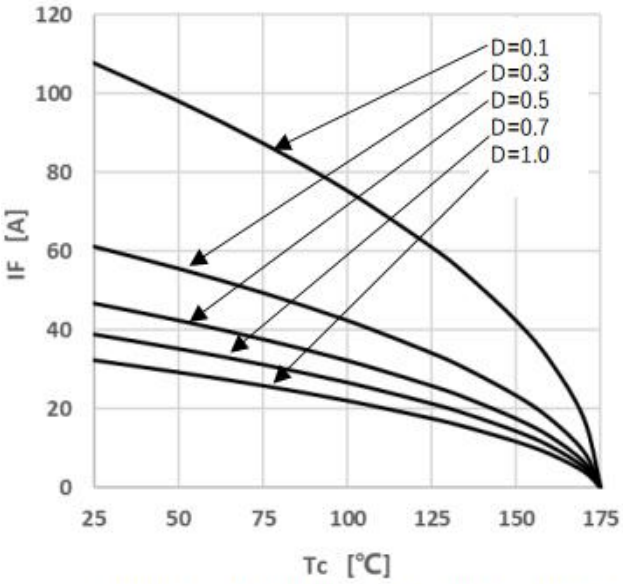


Figure 3 Peak Forward Current Derating

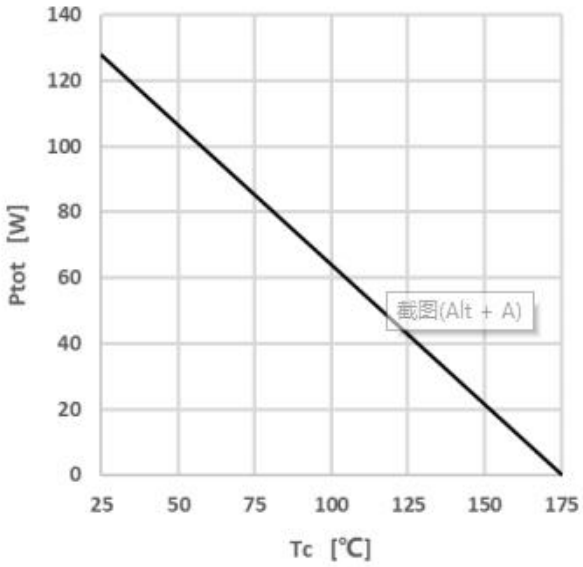


Figure 4 Power Dissipation

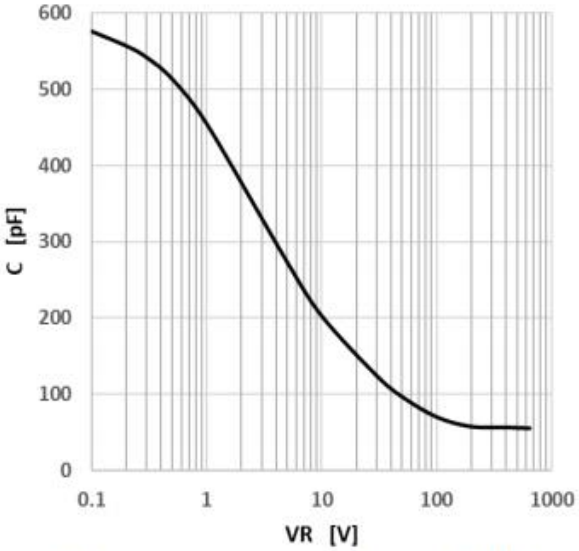


Figure 5 Capacitance vs. Reverse Voltage

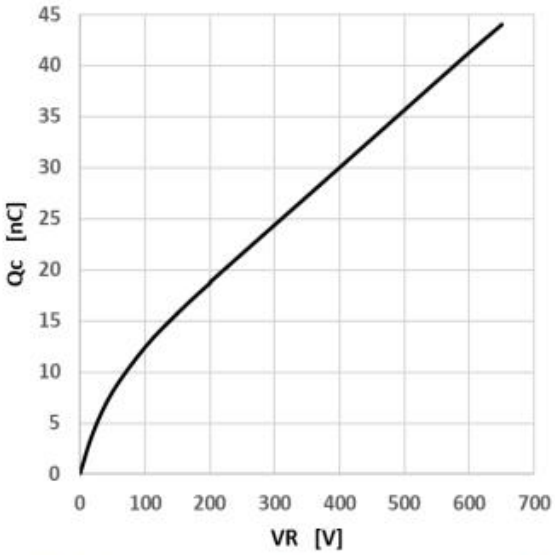


Figure 6 Capacitance Charge vs. Reverse Voltage

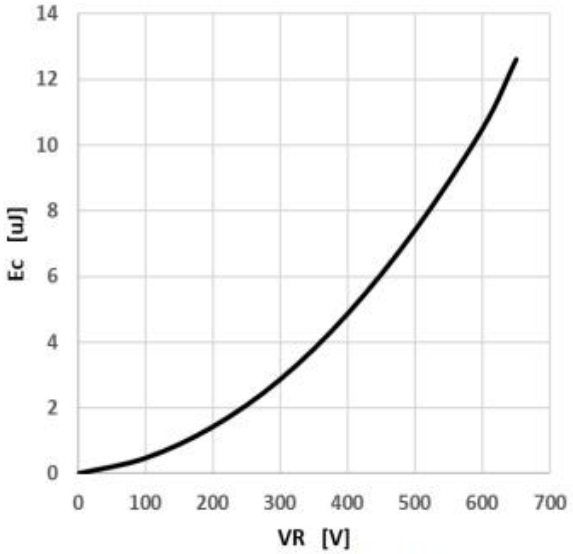


Figure 7 Capacitance Stored Energy

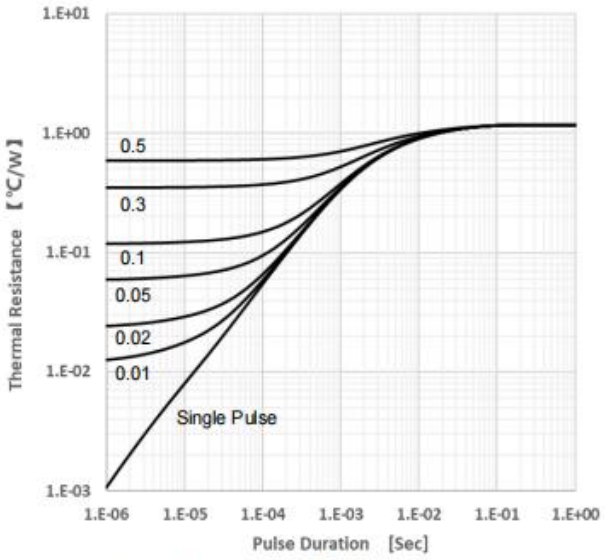
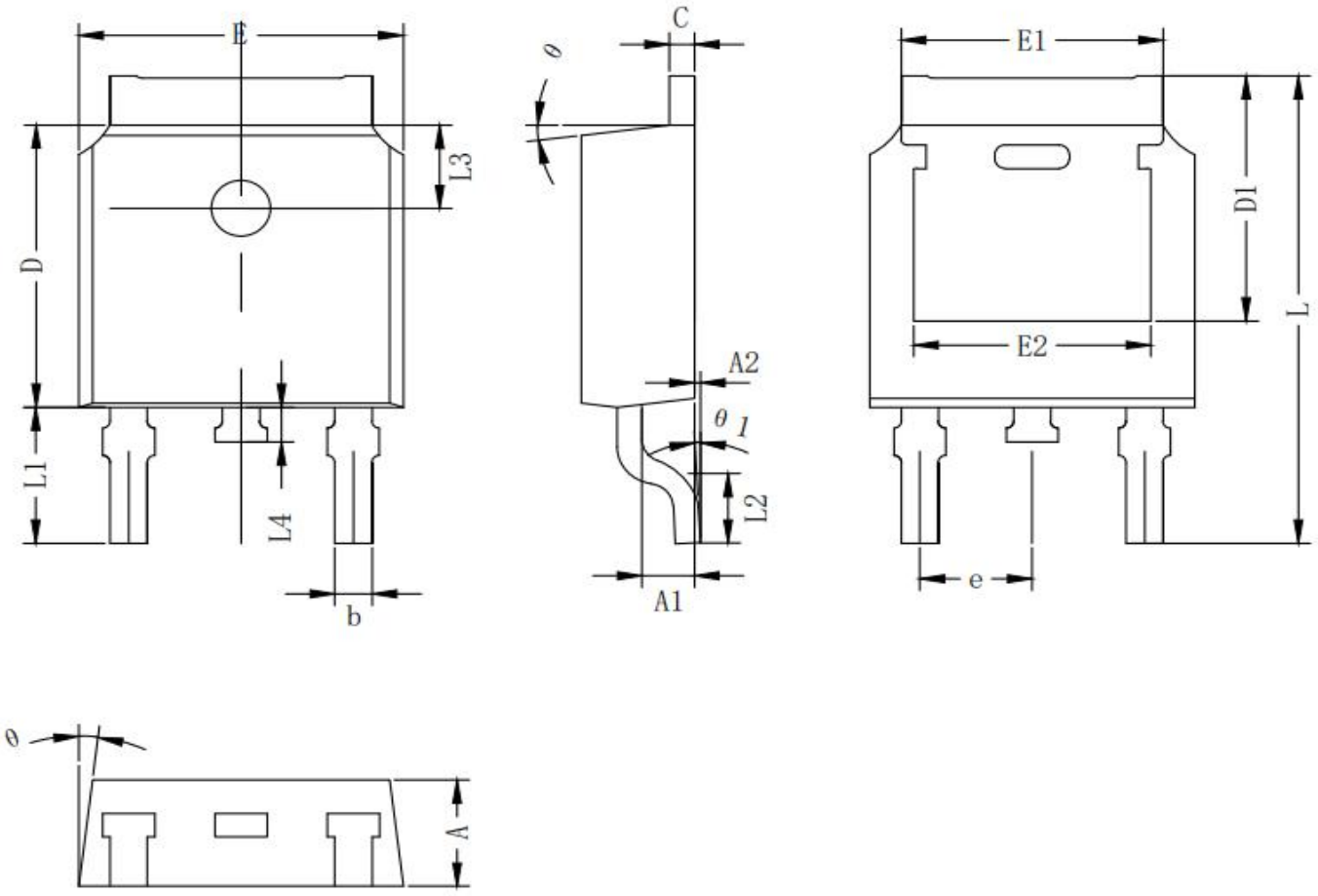


Figure 8 Transient Thermal Impedance

Package outline drawing(TO-252 Unit: mm)



符号	尺寸		符号	尺寸		符号	尺寸	
	Min	Max		Min	Max		Min	Max
A	2.10	2.50	D1	5.10	5.45	L2	1.4	1.7
A1	0.97	1.17	E	6.4	6.8	L3	1.65	1.95
A2	0.00	0.12	E1	5.1	5.45	L4	0.60	1.00
b	0.66	0.86	E2	4.63	5.03	e	2.286BSC	
C	0.45	0.6	L	9.90	10.30	0	5	10
D	5.90	6.30	L1	2.74	3.14	0 1	0	3

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