

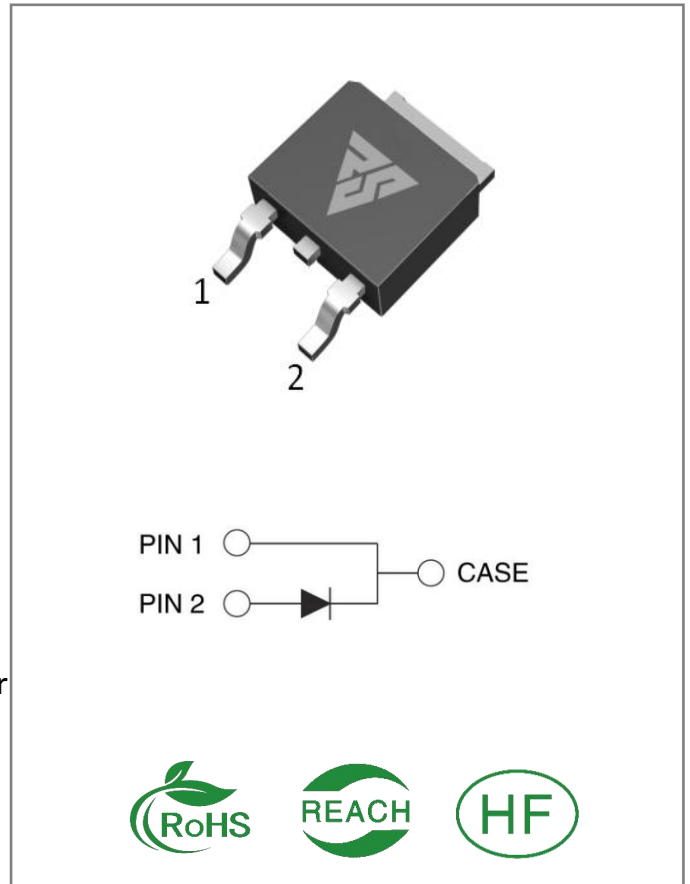
VRRM	IF (TC=156℃)	QC
1200V	2A	11.2nC

Applications:

- Power Factor Correction
- Sever Mode Power Supplies
- Uninterruptible Power Supply

Features:

- Low Forward Voltage Drop
- High-Speed Switching
- Positive Temperature Coefficient
- Temperature-Independent Switching Behavior



Ordering Information

Part Number	Package	Marking	Packing	Qty.
RSS02120D	TO-252	RSS02120D	Tape&reel	2500 PCS

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

Symbol	Parameter	Value	Unit	Test Conditions	Note
VRRM	Repetitive Peak Reverse Voltage	1200	V		
VRSM	Surge Peak Reverse Voltage	1200	V		
VR	DC Blocking Voltage	1200	V		
IF	Forward Current	9.5 5 2	A	TC = 25°C TC = 125°C TC = 156°C	Fig.7
IFSM	Non-Repetitive Forward Surge Current	18	A	TC = 25°C, tp = 10ms Half Sine Wave	
IF,Max	Non-Repetitive Peak Forward Surge Current	180	A	TC=25°C, tP= 10 μs, Pulse	
IFRM	Repetitive Peak Forward Surge Current	10	A	TC = 25°C, tp = 10ms Half Sine Wave	
Ptot	Power Dissipation	76.5 33.2	W	TC = 25°C TC = 110°C	Fig.6
TJ,TST G	Operating Junction and Storage Temperature	-55 to175	°C		

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

Symbol	Parameter	Typ.	Max.	Unit	Test Conditions	Note
VF	Forward Voltage	1.4 2.1	1.8 2.5	V	IF =2A, T _J = 25°C IF =2A, T _J = 175°C	Fig.1
IR	Reverse Current	2 40	20 100	μA	VR =1200V, T _J = 25°C VR = 1200V, T _J = 175°C	Fig.2
C	Total Capacitance	148 11 8	/	pF	VR=0V, T _J = 25°C, f=1MHz VR=400V, T _J = 25°C, f=1MHz VR=800V, T _J = 25°C, f = 1MHz	Fig.3
QC	Total Capacitive Charge	11.2	/	nC	VR =800V,T _J = 25°C $Q_c = \int_0^{V_R} C(V) dV$	Fig.4
Ec	Capacitance Stored Energy	5.8	/	μJ	VR =800V	Fig.5

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

Symbol	Parameter	Typ.	Unit	Note
RθJC	Thermal Resistance from Junction to Case	1.96	°C/W	Fig.8

Typical Feature Curve

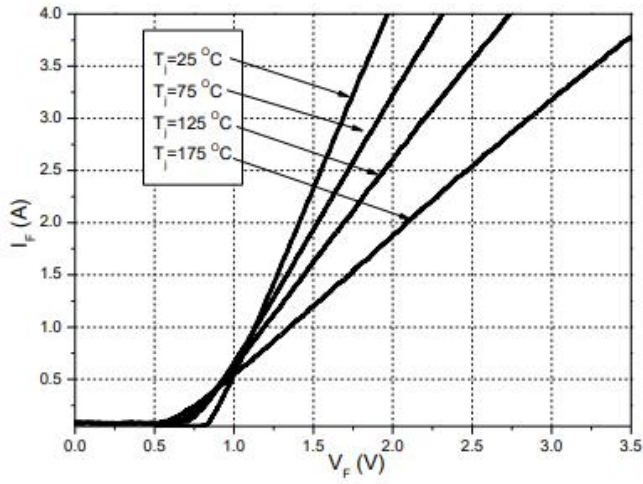


Figure 1. Forward Characteristics

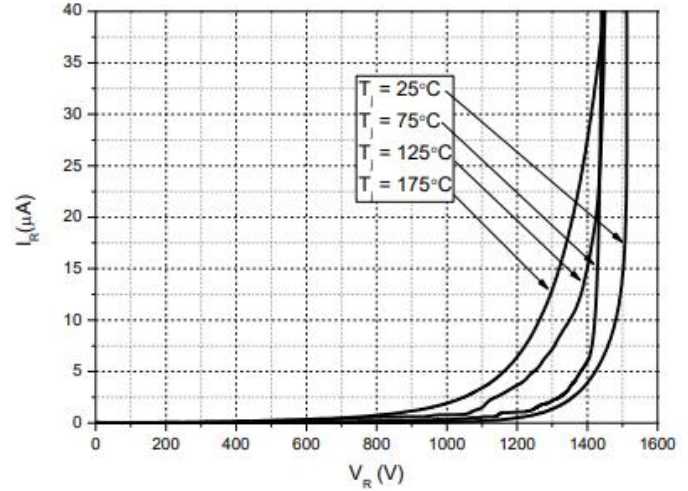


Figure 2. Reverse Characteristics

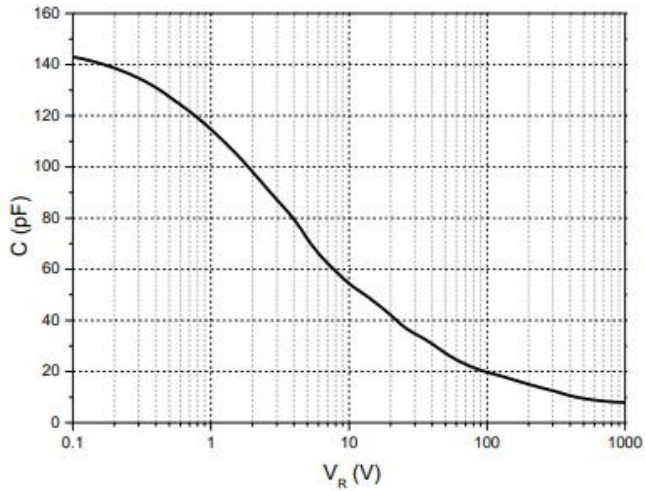


Figure 3. Capacitance vs. Reverse Voltage

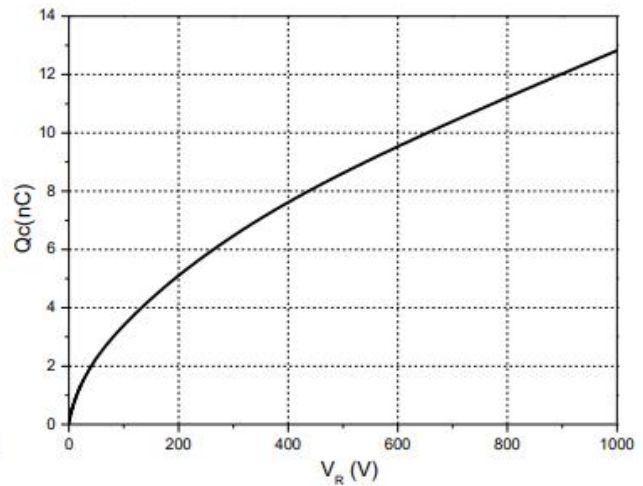


Figure 4. Total Capacitance Charge vs. Reverse Voltage

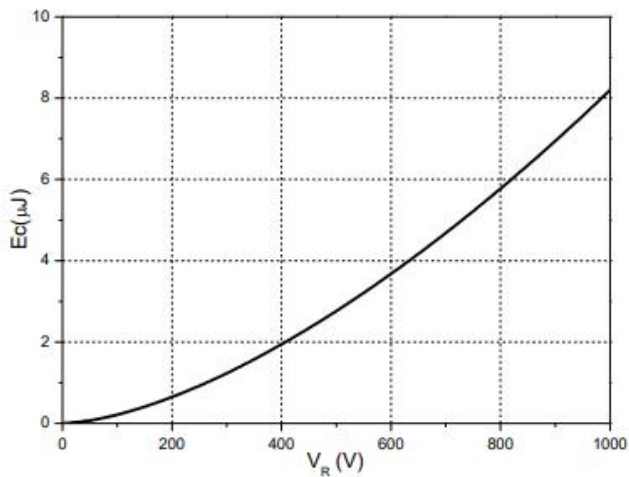


Figure 5. Capacitance Stored Energy

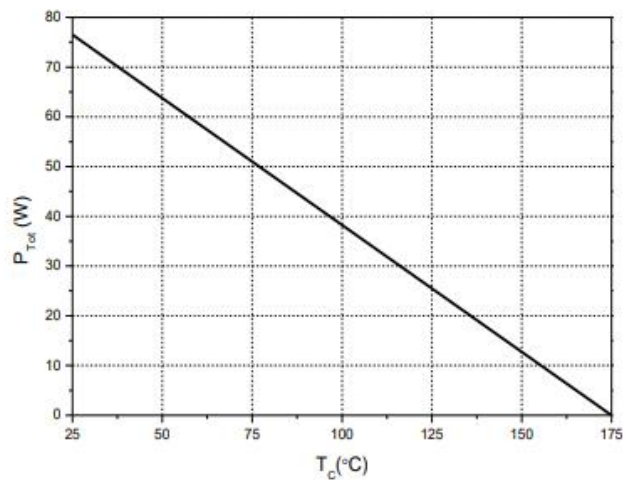


Figure 6. Power Derating

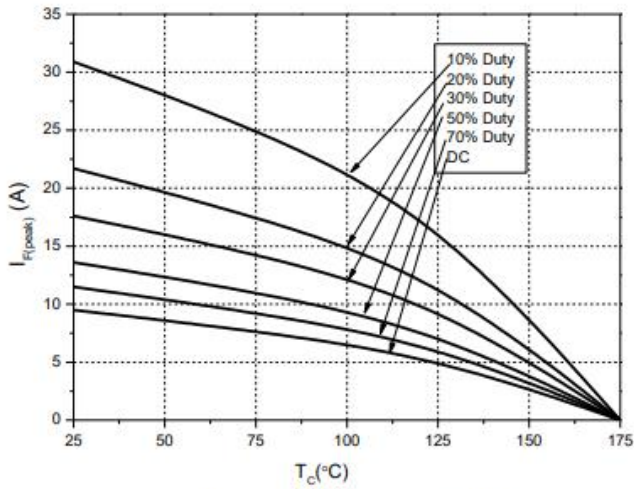


Figure 7. Current Derating

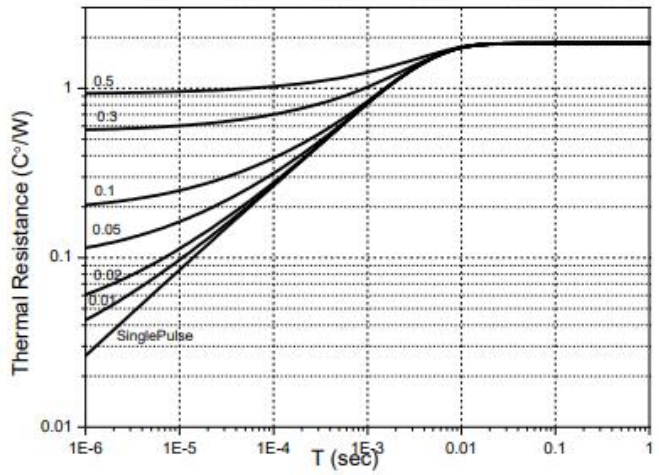
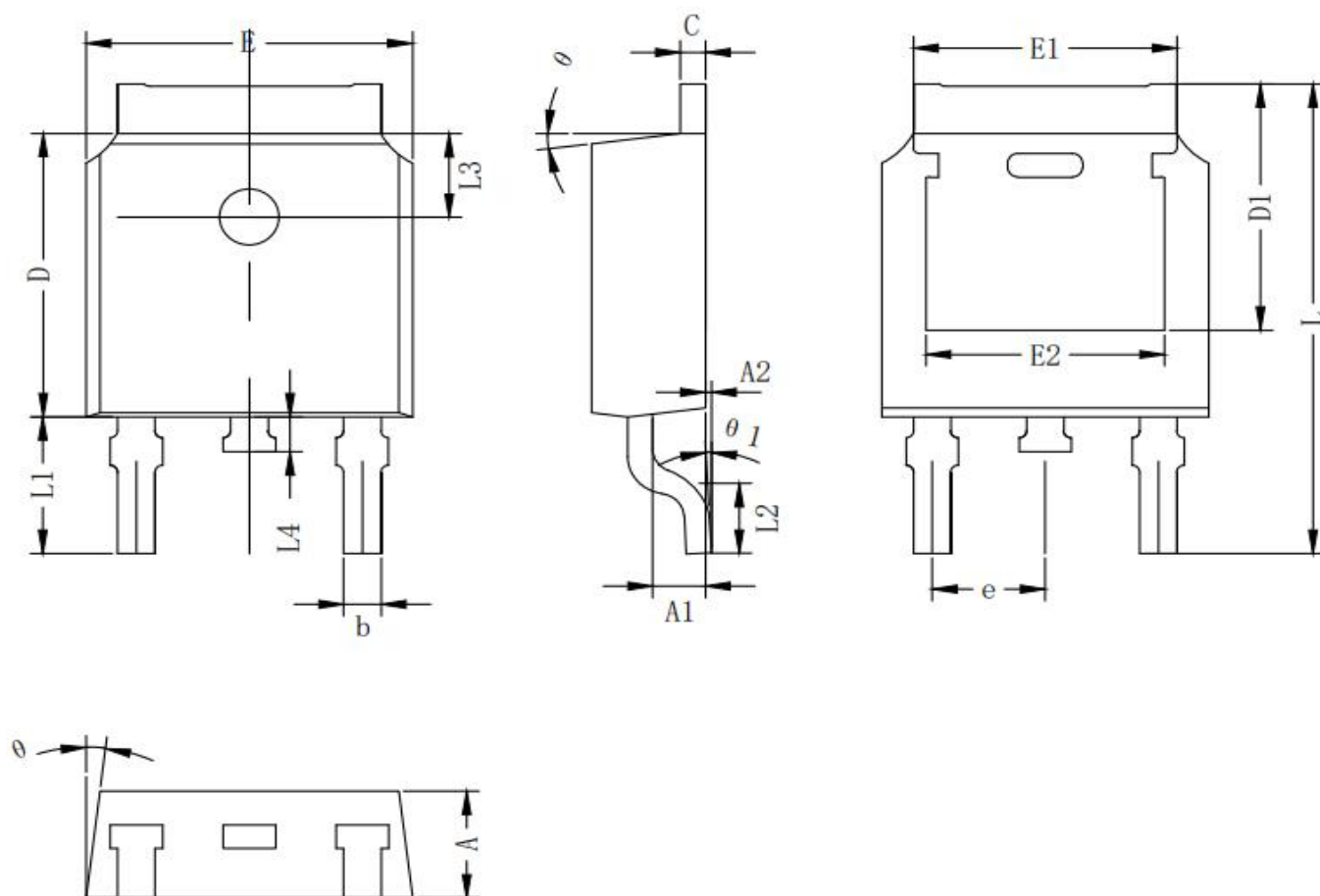


Figure 8. Transient Thermal Impedance

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	5.55	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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