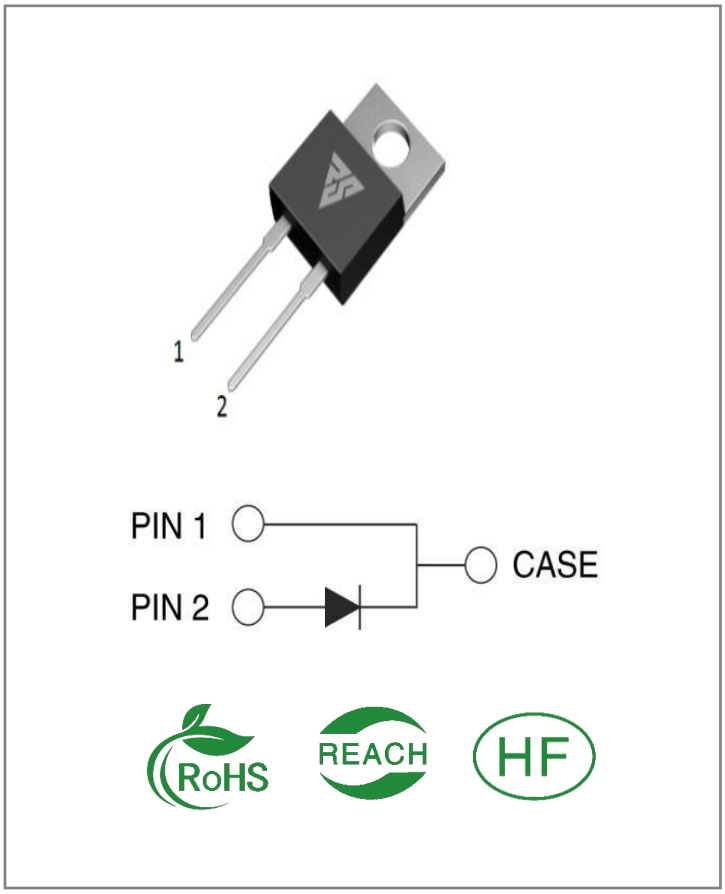
VRRM	IF (TC≤125℃)	QC
650V	8A	15.4nC



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.
RSS04065B	TO-220-2 内绝缘	RSS04065B	Tube	50 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	17 8 4	A	TC ≤ 25℃ TC ≤ 125℃ TC ≤ 150℃	Fig.3
IFSM	Non-Repetitive Forward Surge Current	35 29	A	TC = 25℃, tp = 10ms, Half Sine Wave TC = 110℃, tp = 10ms, Half Sine Wave	
IFRM	Repetitive Peak Forward Surge Current	25	A	TC = 25℃, tp = 10ms, Half Sine Wave	
Ptot	Power Dissipation	48	W	TC = 25℃	Fig.4
TC	Maximum Case Temperature	150	℃		
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 1.63	1.6 1.8	V	IF = 4A, TJ = 25℃ IF = 4A, TJ = 175℃	Fig.1
IR	Reverse Current	0.1 0.8	25 100	μA	VR = 650V, TJ = 25℃ VR = 650V, TJ = 175℃	Fig.2
C	Total Capacitance	289 30 22	/	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	15.4	/	nC	VR =400V,	

Thermal Characteristics (TJ= 25℃ unless otherwise specified)

Symbol	Parameter	Typ.	Unit	Note
RθJC	Thermal Resistance from Junction to Case	3.11	℃/W	Fig.6

Typical Feature Curve

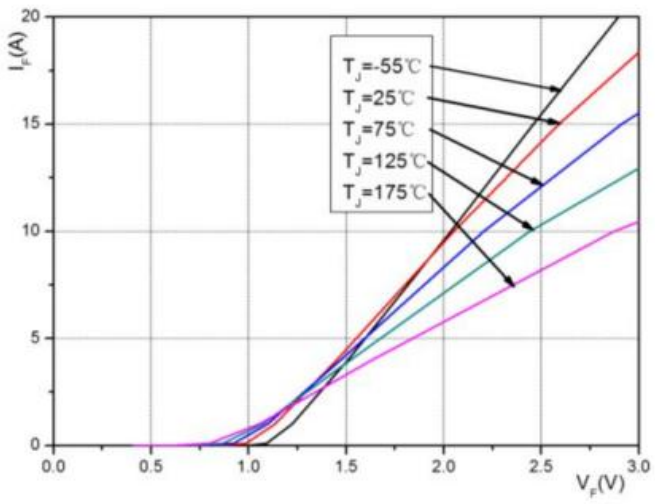


图 1. 正向特性曲线

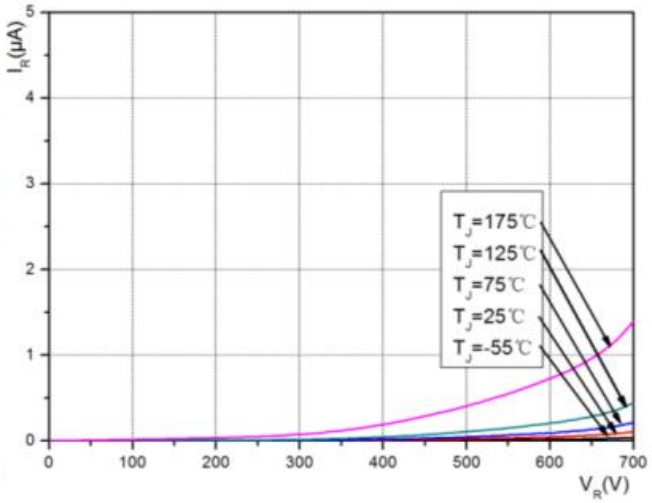


图 2 反向特性曲线

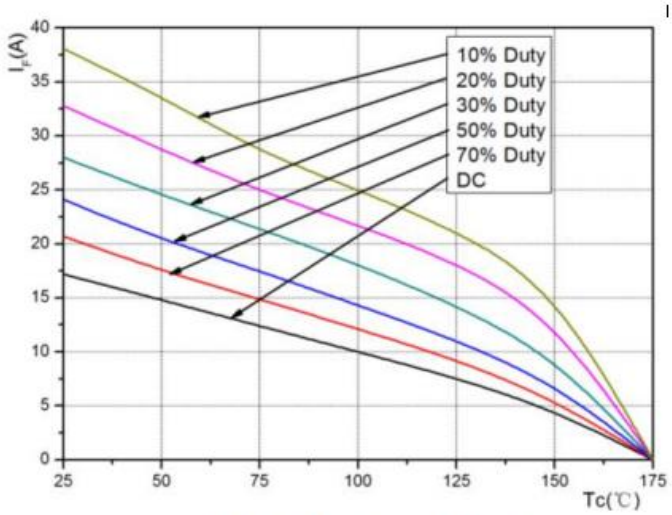


图 3 不同负载下的电流

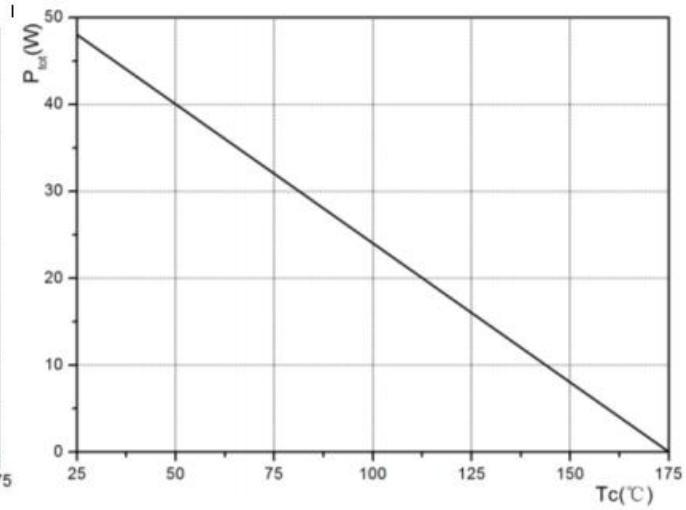


图 4 耗散功率曲线

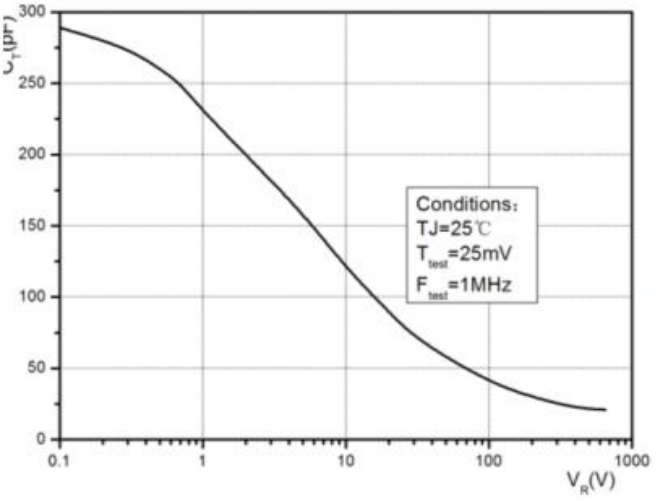


图 5 电容—反向电压曲线

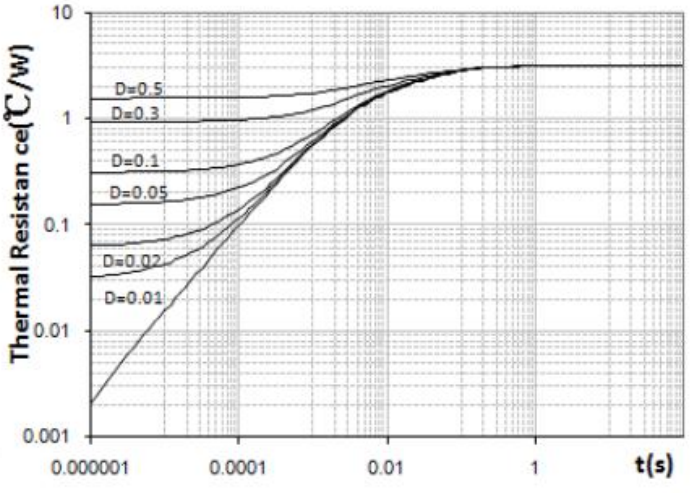
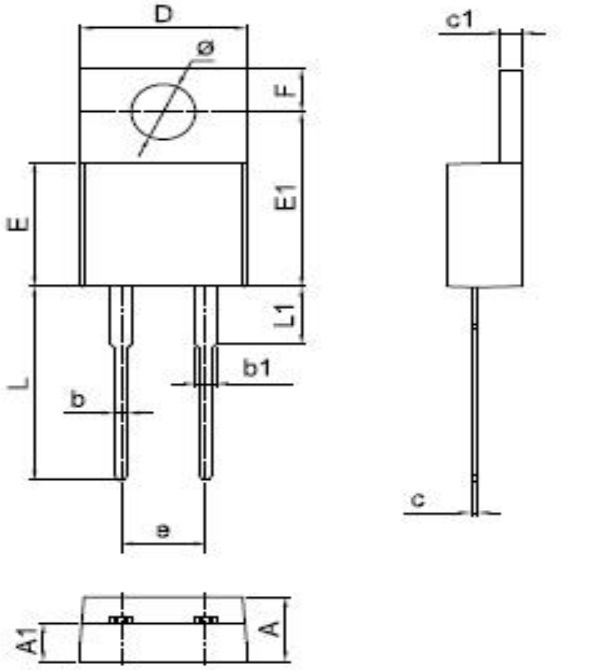


图 6 结到壳热阻曲线

Package outline drawing(TO-220 Unit: mm)

TO-220-2L Package Dimensions (Unit:mm)



Symbol	Min.	Typ	Max.
A	4.30	4.50	4.70
A1	2.52	2.67	2.82
b	0.71	0.81	0.91
b1	1.17	1.27	1.37
c	0.30	0.40	0.50
c1	1.17	1.27	1.37
D	9.90	10.00	10.20
E	8.50	8.70	8.90
E1	12.00	12.25	12.50
e	4.88	5.08	5.28
F	2.60	2.75	2.80
L	13.20	13.50	13.80
L1	3.80	4.00	4.20
Φ	3.75	3.85	3.95

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