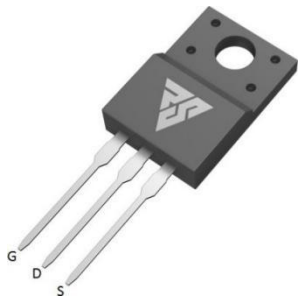
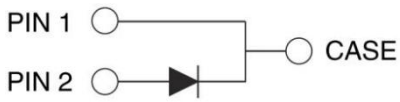
VRRM	IF (TC=120℃)	QC
650V	10A	28nC





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.
RSS10065F	TO-220F	RSS10065F	Tube	50 PCS

Maximum Ratings （TJ= 25℃ unless otherwise specified）

Symbol	Parameter	Value	Unit	Test Conditions	Note
VRRM	Repetitive Peak Reverse Voltage	650	V		
VRSM	Surge Peak Reverse Voltage	650	V		
VR	DC Blocking Voltage	650	V		
IF	Forward Current	10	A	TC=120℃	Fig.7
IFSM	Non-Repetitive Forward Surge Current	105	A	TC=25℃, tp=10ms Half Sine Wave	
IF,Max	Non-Repetitive Peak Forward Surge Current	840	A	TC=25˚C, tP=10μs, Pulse	
IFRM	Repetitive Peak Forward Surge Current	80	A	TC=25℃, tp=10ms Half Sine Wave	
Ptot	Power Dissipation	55.6 24.1	W	TC=25℃ TC=110℃	Fig.6
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	1.4 1.75	1.7 2.0	V	IF=10A, TJ=25℃ IF=10A, TJ=175℃	Fig.1
IR	Reverse Current	1 20	20 200	μA	VR=650V, TJ = 25℃ VR=650V, TJ = 175℃	Fig.2
C	Total Capacitance	550 53 48	/	pF	VR=0V, TJ = 25℃, f=1MHz VR=200V, TJ = 25℃, f=1MHz VR=400V, TJ = 25℃, f = 1MHz	Fig.3
QC	Total Capacitive Charge	28	/	nC	VR=400V,TJ = 25℃,IF=10A $Qc=\int_0^{V_R} C(V)dV$	Fig.4
Ec	Capacitance Stored Energy	7.0	/	μJ	VR =400V	Fig.5

Thermal Characteristics （TJ= 25℃ unless otherwise specified）

Symbol	Parameter	Typ.	Unit	Note
RθJC	Thermal Resistance from Junction to Case	2.70	℃/W	Fig.8

Typical Feature Curve

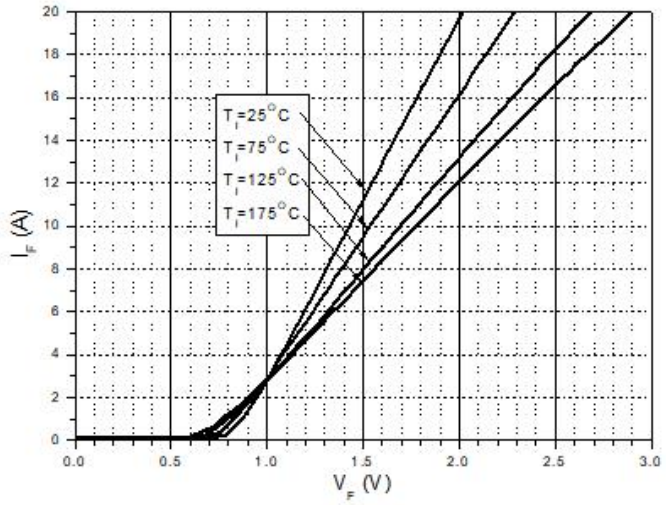


Figure 1.Forward Characteristics

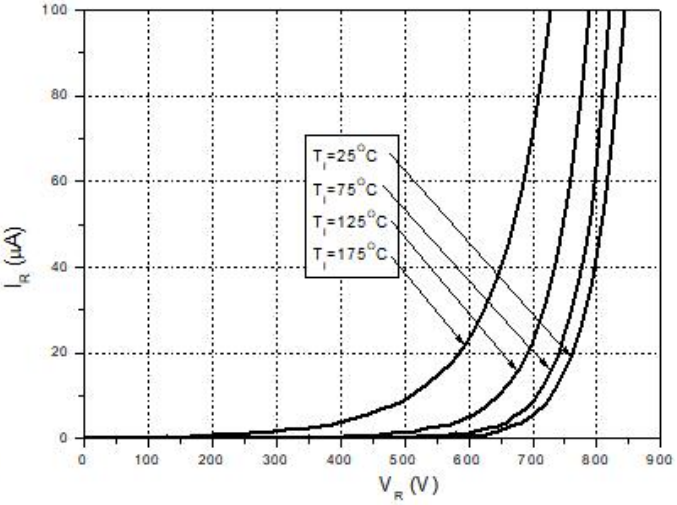


Figure 2. Reverse Characteristics

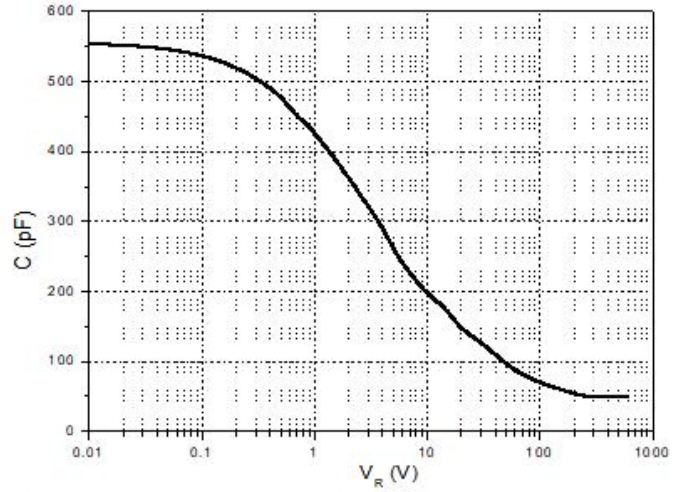


Figure 3.Capacitance vs. Reverse Voltage

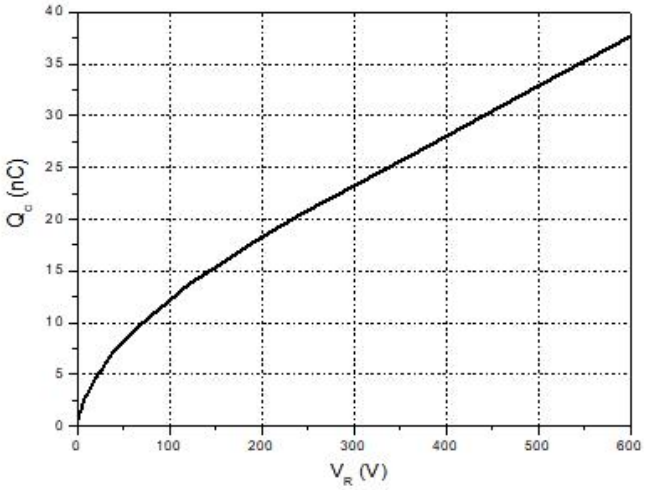


Figure 4. Total Capacitance Charge vs. Reverse Voltage

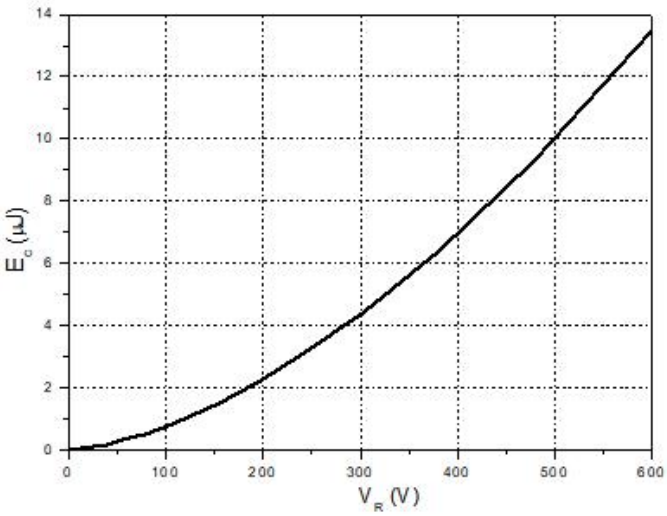


Figure 5. Capacitance Stored Energy

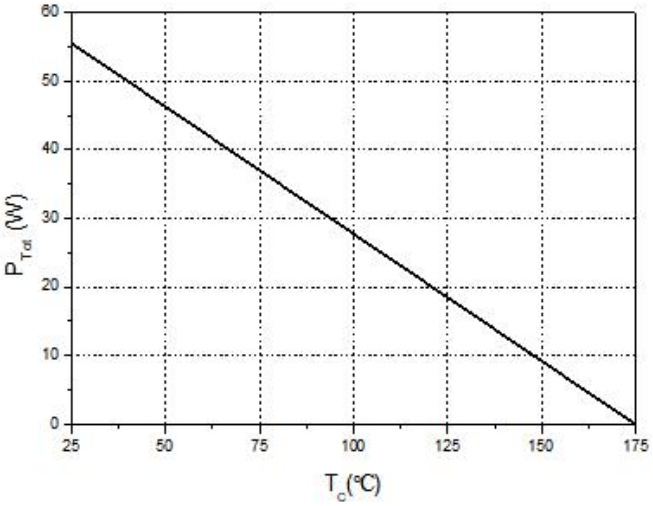


Figure 6. Power Derating

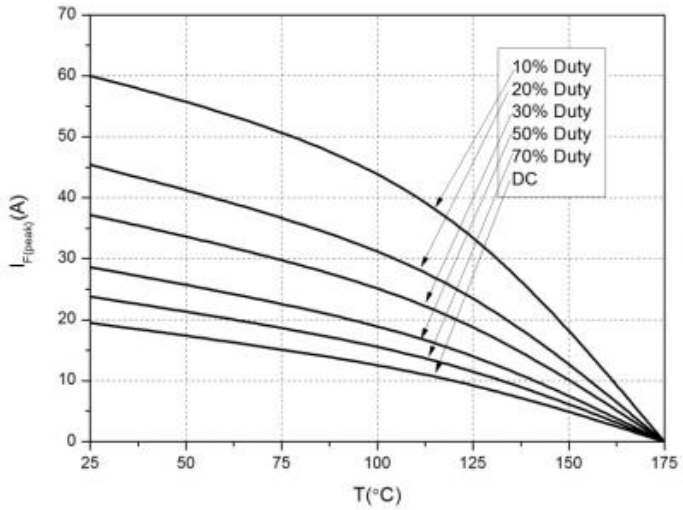


Figure 7. Current Derating

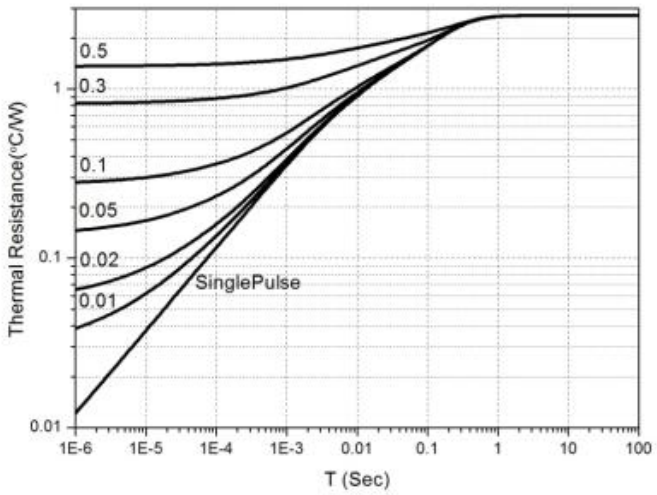
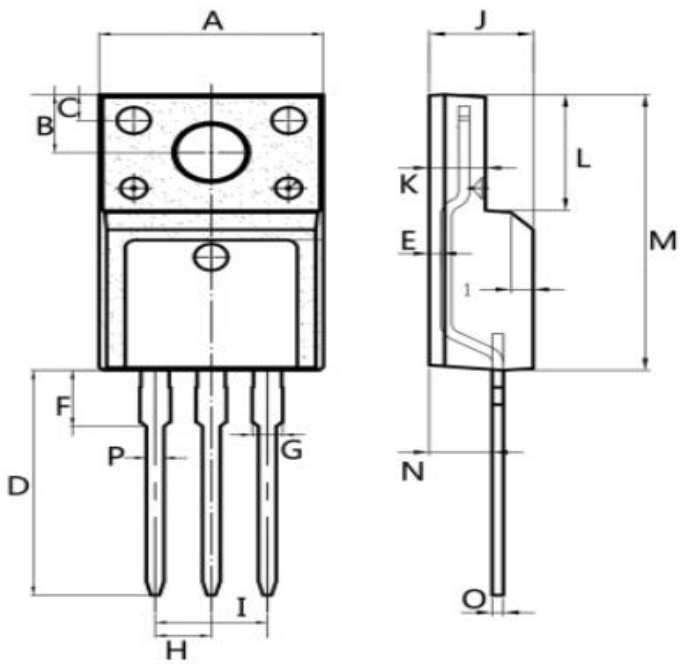


Figure 8. Transient Thermal Impendance

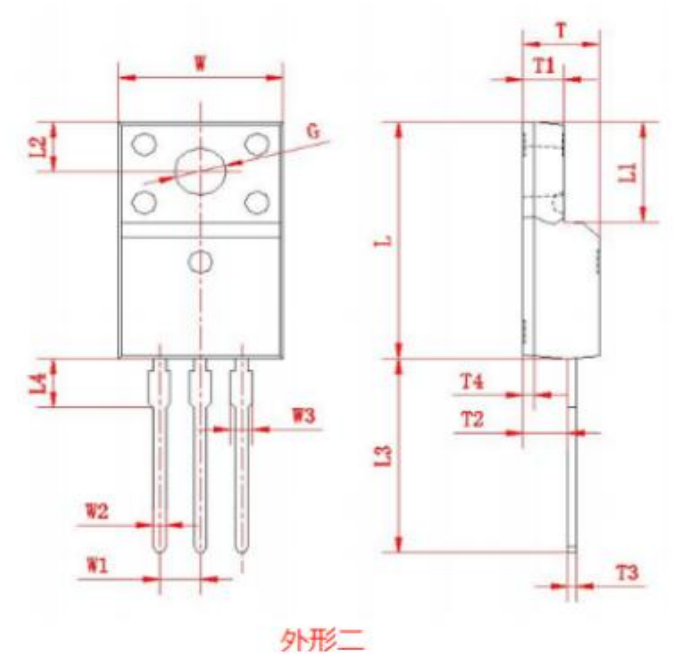
Package outline drawing(TO-220F Unit: mm)



外形一

Dim.	Min.	Max.
A	9.95	10.36
A1	4.5	5.0
B	2.95	3.25
C	1.25	1.45
D	12.60	13.60
E	0.40	0.60
F	2.8	3.5
G	1.30	1.45
H	(2.54)	
I	(5.08)	
J	4.60	4.75
K	2.45	2.65
L	6.5	6.8
M	15.4	16.0
N	2.25	3.05
O	0.45	0.55
P	0.70	0.90

All Dimensions in millimeter



外形二

Dim.	Min.	Max.
W	9.95	10.36
W1	(2.54)	
W2	0.70	0.90
W3	1.25	1.47
L	15.67	16.07
L1	6.48	6.88
L2	3.2	3.4
L3	12.6	13.6
L4	(3.23)	
T	4.50	4.90
T1	2.34	2.74
T2	2.25	2.95
T3	0.45	0.60
T4	(0.70)	
G	3.08	3.28

All Dimensions in millimeter

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