

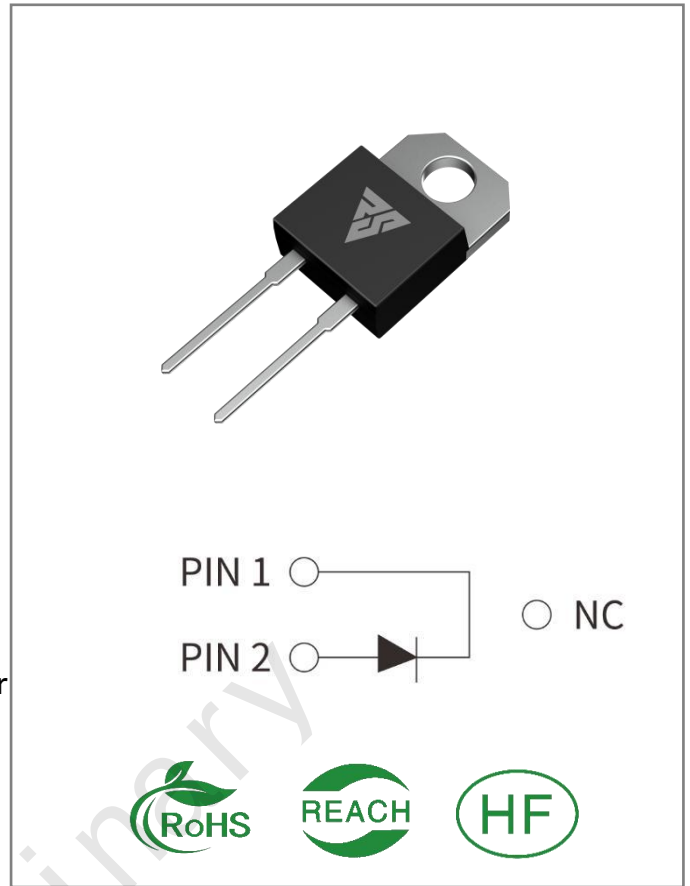
VRRM	IF (TC=150℃)	QC
650V	10A	28nC

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.
RSS10065B	TO-220-2 Internal insulation	RSS10065B	Tube	50 PCS

Maximum Ratings (T_J= 25°C 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 = 150°C	Fig.3
IFSM	Non-Repetitive Forward Surge Current	90	A	TC = 25°C, tp = 10ms Half Sine Wave	
IFRM	Repetitive Peak Forward Surge Current	55	A	TC = 25°C, tp = 10ms Half Sine Wave	
Ptot	Power Dissipation	98	W	TC = 25°C	Fig.4
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 1.7	1.7 2.0	V	IF =10A, T _J = 25°C IF =10A, T _J = 175°C	Fig.1
IR	Reverse Current	1 20	20 200	μA	VR =650V, T _J = 25°C VR = 650V, T _J = 175°C	Fig.2
C	Total Capacitance	762 75 54	/	pF	VR=0V, T _J = 25°C, f=1MHz VR=200V, T _J = 25°C, f=1MHz VR=400V, T _J = 25°C, f = 1MHz	Fig.5
QC	Total Capacitive Charge	28	/	nC	VR =400V,IF=10A,T _J = 25°C $Q_c = \int_0^{V_R} C(V) dV$	
Ec	Capacitance Stored Energy	7.0	/	μJ	VR =400V	

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

Symbol	Parameter	Typ.	Unit	Note
RθJC	Thermal Resistance from Junction to Case	2.03	°C/W	Fig.6

Typical Feature Curve

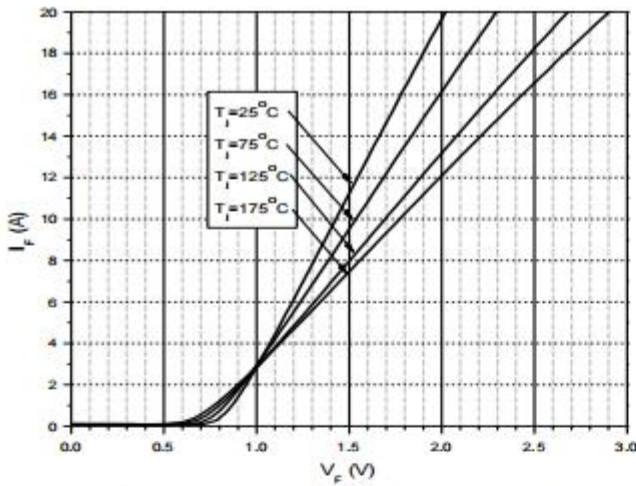


Figure 1. Forward Characteristics

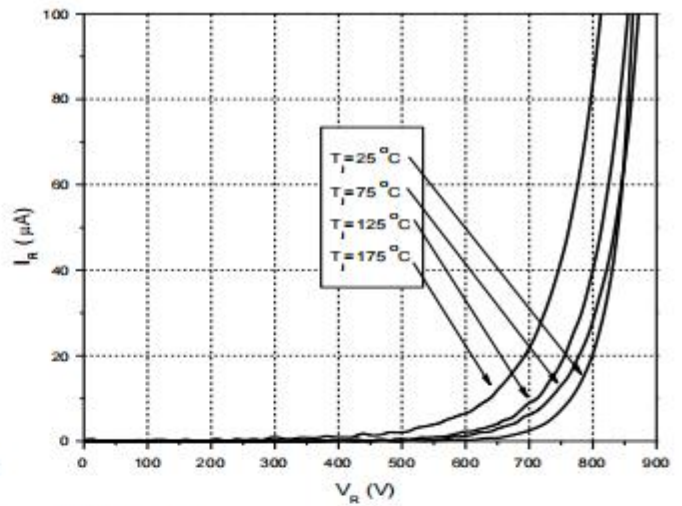


Figure 2. Reverse Characteristics

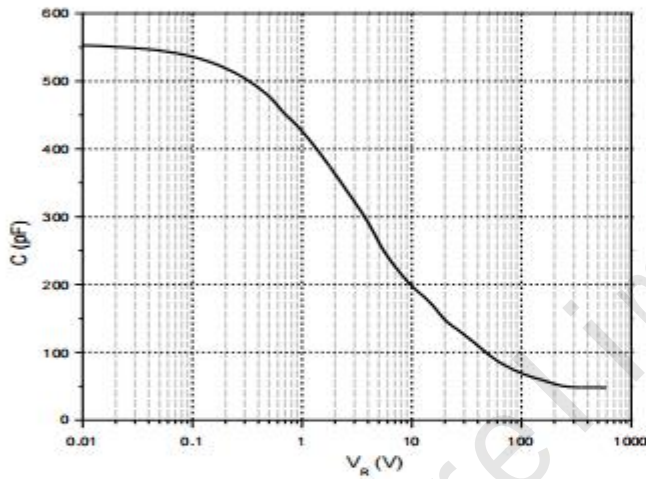


Figure 3. Capacitance vs. Reverse Voltage

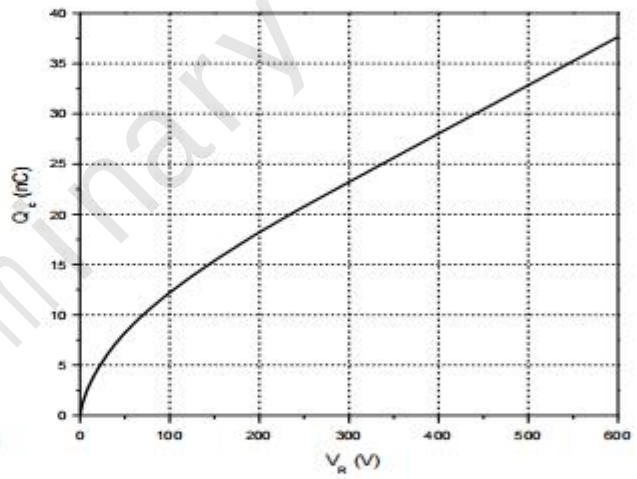


Figure 4. Total Capacitance Charge vs. Reverse Voltage

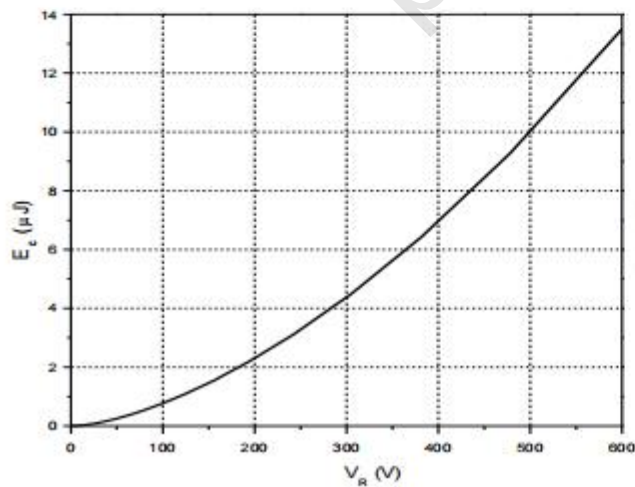


Figure 5. Capacitance Stored Energy

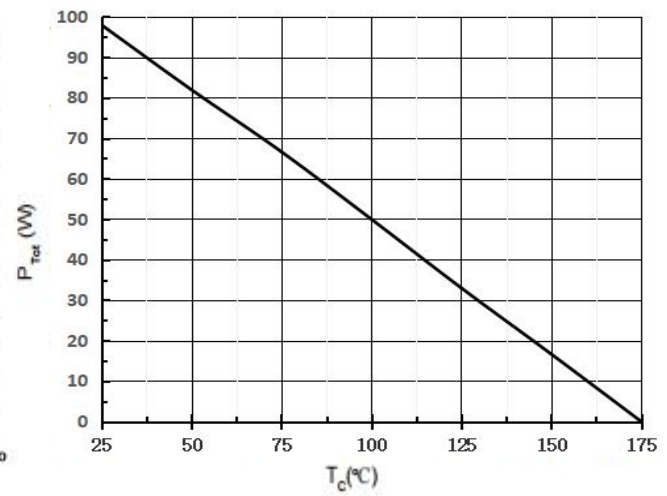


Figure 6. Power Derating

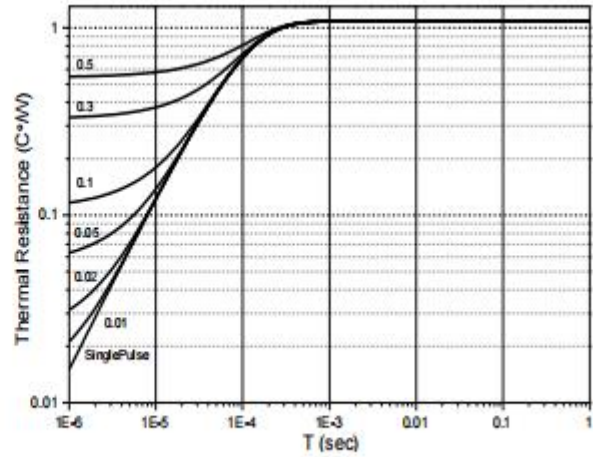
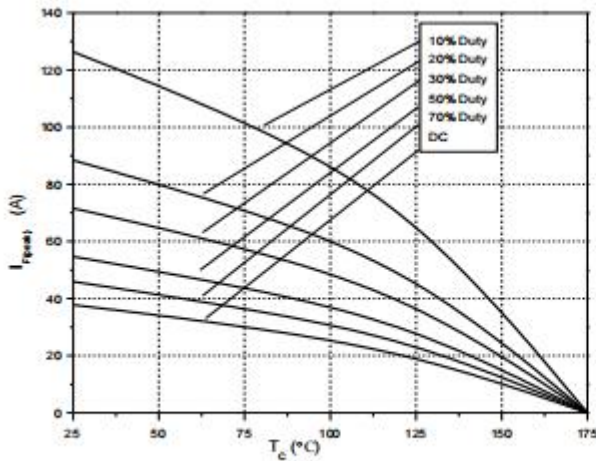
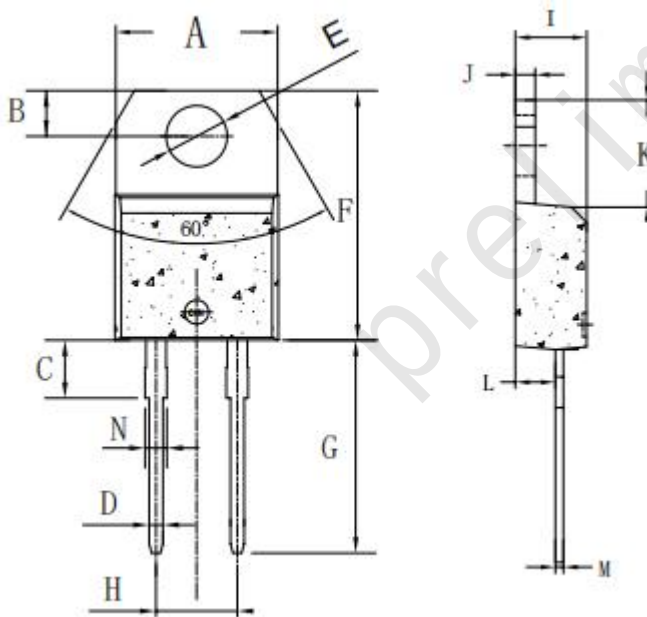


Figure 7. Current Derating Figure 8. Transient Thermal Impedance

Package outline drawing(TO-220-2 Unit: mm)



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	9.8	10.4	0.385	0.409
B	2.65	3.1	0.104	0.122
C	2.8	4.2	0.110	0.165
D	0.7	0.92	0.027	0.036
E	3.75	3.95	0.147	0.155
F	14.8	16.1	0.582	0.633
G	13.05	13.6	0.513	0.535
H	4.9	5.3	0.192	0.208
I	4.38	4.61	0.172	0.181
J	1.15	1.36	0.045	0.053
K	5.85	6.82	0.230	0.268
L	2.35	2.75	0.092	0.108
M	0.35	0.65	0.013	0.025
N	1.18	1.42	0.046	0.055

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