

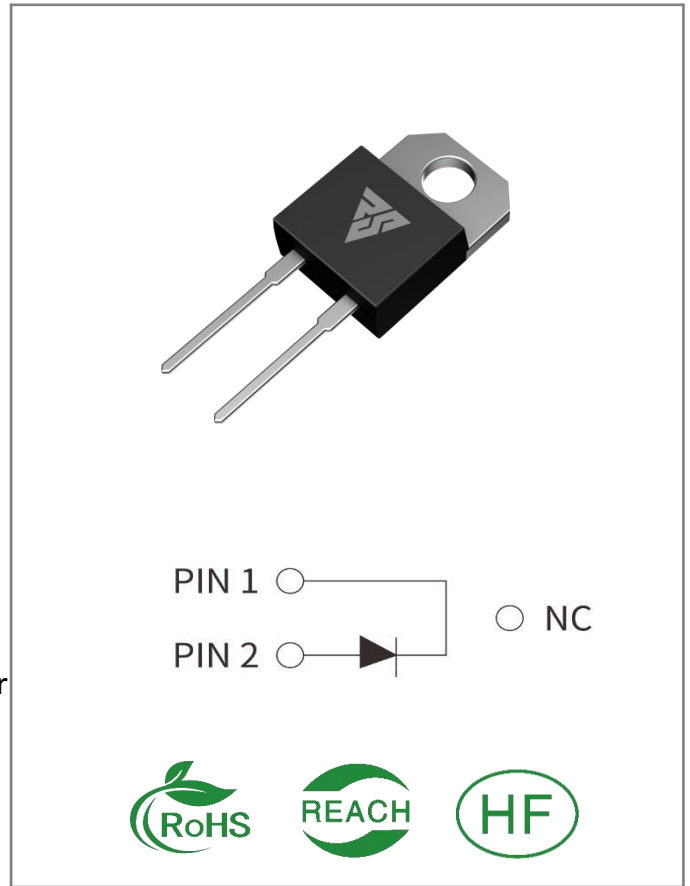
VRRM	IF ( TC≤150℃)	QC
650V	6A	23nC

#### 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.
RSS06065B	TO-220-2 内绝缘	RSS06065B	Tube	50 PCS

**Maximum Ratings** (T<sub>J</sub>= 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	6	A	TC ≤ 150°C	
IFSM	Non-Repetitive Forward Surge Current	50	A	TC = 25°C, t <sub>p</sub> = 10ms Half Sine Wave	
IF,Max	Non-Repetitive Peak Forward Surge Current	520	A	TC=25°C, t <sub>P</sub> = 10 μs, Pulse	
IFRM	Repetitive Peak Forward Surge Current	35	A	TC = 25°C, t <sub>p</sub> = 10ms Half Sine Wave	
P <sub>tot</sub>	Power Dissipation	70	W	TC = 25°C TC = 110°C	
T <sub>J</sub> ,T <sub>ST</sub> G	Operating Junction and Storage Temperature	-55 to 175	°C		

**Electrical Characteristics** (T<sub>J</sub>= 25°C unless otherwise specified)

Symbol	Parameter	Typ.	Max.	Unit	Test Conditions	Note
V <sub>F</sub>	Forward Voltage	1.4 1.6	1.6 1.8	V	IF = 6A, T <sub>J</sub> = 25°C IF = 6A, T <sub>J</sub> = 175°C	
I <sub>R</sub>	Reverse Current	2 15	30 120	μA	VR = 650V, T <sub>J</sub> = 25°C VR = 650V, T <sub>J</sub> = 175°C	
C	Total Capacitance	423 44 37	/	pF	VR=0V, T <sub>J</sub> = 25°C, f=1MHz VR=200V, T <sub>J</sub> = 25°C, f=1MHz VR=400V, T <sub>J</sub> = 25°C, f = 1MHz	
Q <sub>C</sub>	Total Capacitive Charge	23	/	nC	VR = 400V, T <sub>J</sub> = 25°C $Q_c = \int_0^{V_R} C(V) dV$	

**Thermal Characteristics** (T<sub>J</sub>= 25°C unless otherwise specified)

Symbol	Parameter	Typ.	Unit	Note
R <sub>θJC</sub>	Thermal Resistance from Junction to Case	2.3	°C/W	

## Typical Feature Curve

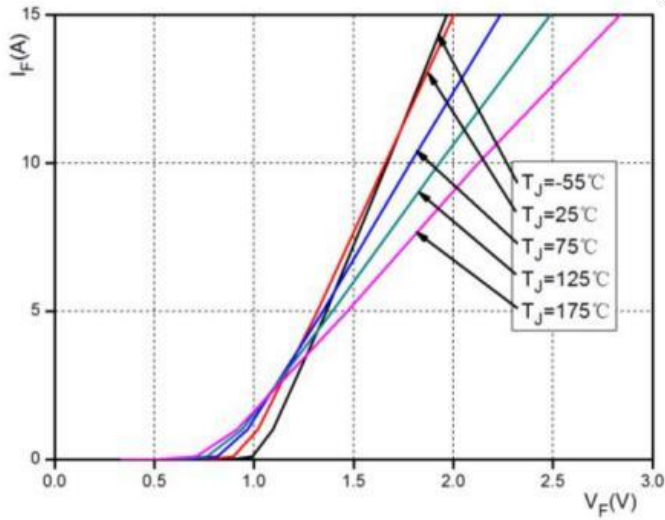


图 1. 正向特性曲线

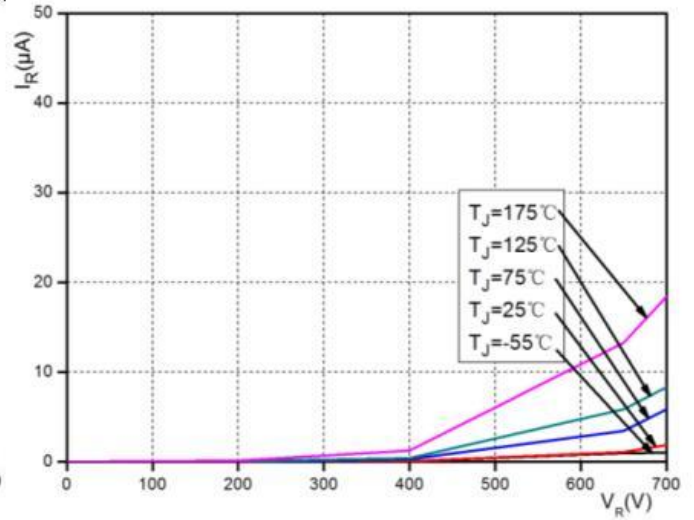


图 2 反向特性

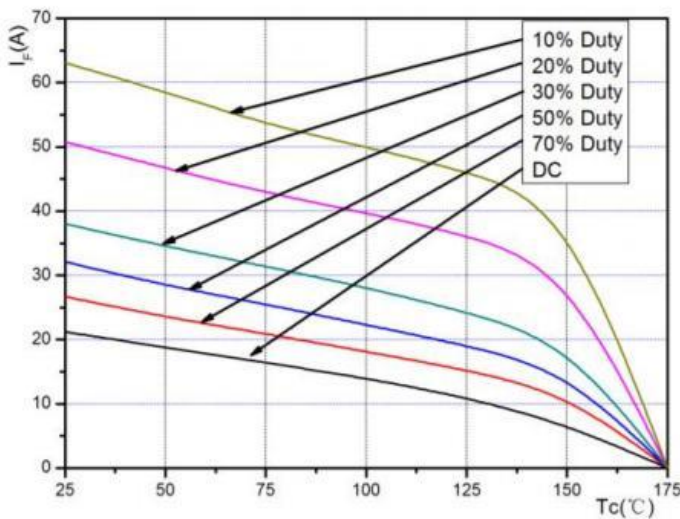


图 3 不同负载下的电流

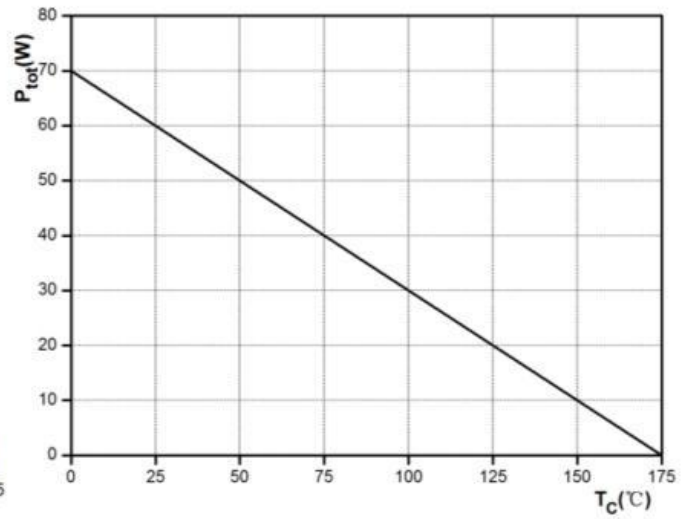


图 4 耗散功率曲线

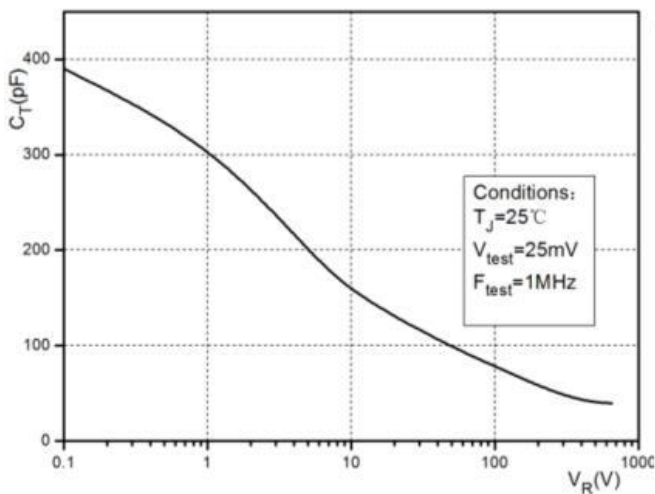


图 5 电容—反向电压曲线

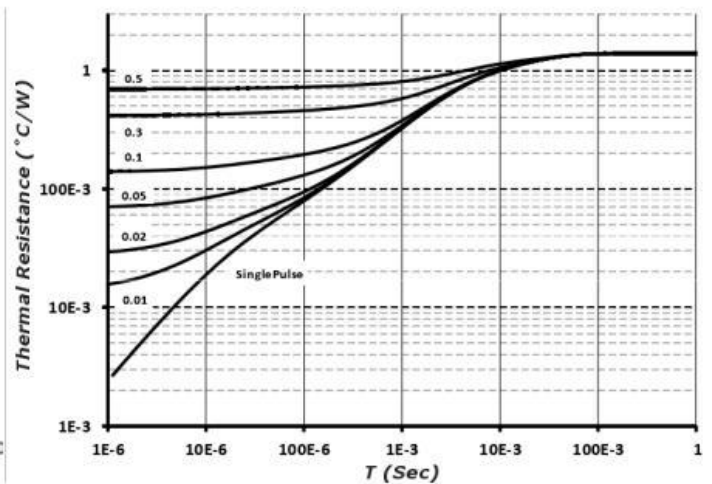
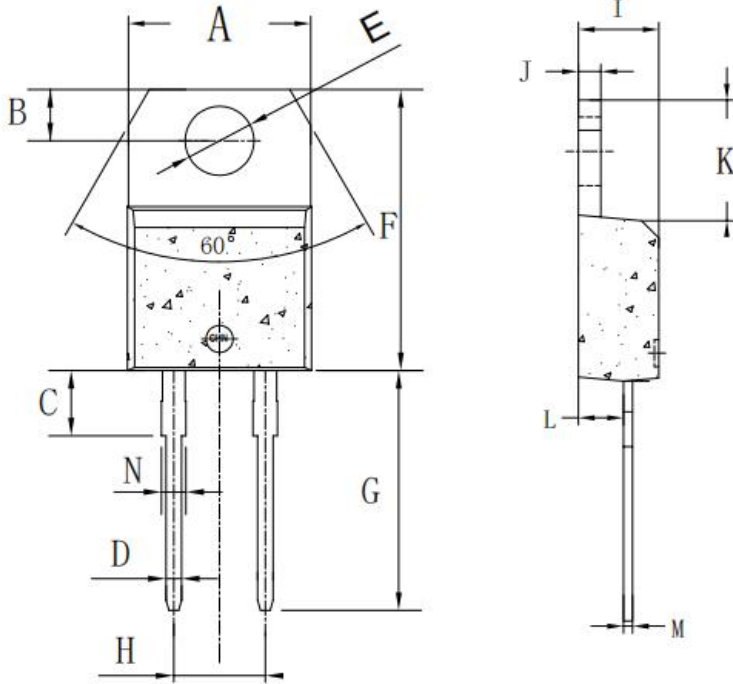


图 6 结到壳热阻曲线

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

PACKAGE OUTLINE  
DIMENSIONS  
TO-220A-2L



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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