



SC15H065

主要参数 MAIN CHARACTERISTICS

V_{RRM}	650V
I_F ($T_C=147^{\circ}C$)	15A
Q_C	36nC

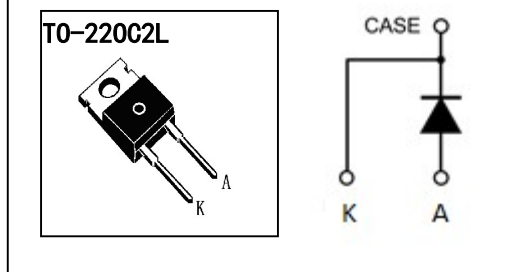
用途 APPLICATIONS

- SMPS
- PFC
- Solar/Wind Renewable Energy
- Power Inverters
- Motor Drives
- UPS

产品特性 FEATURES

- Low Conduction and Switching Loss
- Positive Temperature Coefficient on V_F
- Temperature Independent Switching Behavior
- Fast Reverse Recovery
- High Surge Current Capability

封装 Package



订货信息 ORDER MESSAGE

订 货 型 号 Order codes				印 记 Marking	封 装 Package
有卤-条管 Halogen-Tube	无卤-条管 Halogen Free-Tube	有卤-编带 Halogen-Reel	无卤-编带 Halogen Free-Reel		
SC15H065-CL-B	SC15H065-CL-BR	N/A	N/A	SC15H065	TO-220C2L



绝对最大额定值 ABSOLUTE RATINGS ($T_C=25^{\circ}\text{C}$)

项 目 Parameter	符 号 Symbol	测试条件 Test Conditions	数 值 Value	单 位 Unit
最大反向重复峰值电压 Repetitive peak reverse voltage	V_{RRM}	$T_J = 25^{\circ}\text{C}$	650	V
反向浪涌峰值电压 Peak Reverse Surge Voltage	V_{RSM}	$T_J = 25^{\circ}\text{C}$	650	V
最大直流阻断电压 Maximum DC blocking voltage	V_{DC}	$T_J = 25^{\circ}\text{C}$	650	V
正向平均电流 Average forward current	I_F	$T_C = 25^{\circ}\text{C}$	41	A
		$T_C = 135^{\circ}\text{C}$	19	A
		$T_C = 147^{\circ}\text{C}$	15	A
正向峰值浪涌电流 Surge non repetitive forward current	I_{FSM}	$T_C = 25^{\circ}\text{C}$, $T_P = 10\text{ ms}$ Half Sine Wave	119	A
		$T_C = 125^{\circ}\text{C}$, $T_P = 10\text{ ms}$ Half Sine Wave	107	A
		$T_C = 25^{\circ}\text{C}$, $T_P = 10\text{ }\mu\text{s}$ Pulse	557	A
正向重复峰值浪涌电流 Repetitive Peak Forward Surge Current	I_{FRM}	$T_C = 25^{\circ}\text{C}$, $T_P = 10\text{ ms}$ Half Sine Wave, $D = 0.1$	88	A
		$T_C = 125^{\circ}\text{C}$, $T_P = 10\text{ ms}$ Half Sine Wave, $D = 0.1$	79	A
Power Dissipation	P_D	$T_C = 25^{\circ}\text{C}$	150	W
		$T_C = 125^{\circ}\text{C}$	50	W
最高结温 Maximum junction temperature	T_J		175	$^{\circ}\text{C}$
储存温度 Storage temperature range	T_{STG}		-55~+175	$^{\circ}\text{C}$





电特性 ELECTRICAL CHARACTERISTICS

参数	项 目 Parameter	测试条件 Tests conditions	典型值 Value(typ)	最大值 Value(max)	单位 Unit
DC Blocking Voltage	V_{DC}	$I_R = 100 \mu A, T_J = 25^\circ C$	> 650		V
Forward Voltage	V_F	$I_F = 15 A, T_J = 25^\circ C$	1.45	1.8	V
		$I_F = 15 A, T_J = 175^\circ C$	1.85	2.2	V
Reverse Current	I_R	$V_R = 650 V, T_J = 25^\circ C$	3	100	μA
		$V_R = 650 V, T_J = 175^\circ C$	10	250	μA
Total Capacitive Charge	Q_C	$I_F = 15 A, dI/dt = 300 A/\mu s, V_R = 400 V, T_J = 25^\circ C$	36		nC
Total Capacitance	C	$V_R = 1 V, T_J = 25^\circ C, f = 1 MHz$	677		pF
		$V_R = 200 V, T_J = 25^\circ C, f = 1 MHz$	97		pF
		$V_R = 400 V, T_J = 25^\circ C, f = 1 MHz$	96		pF

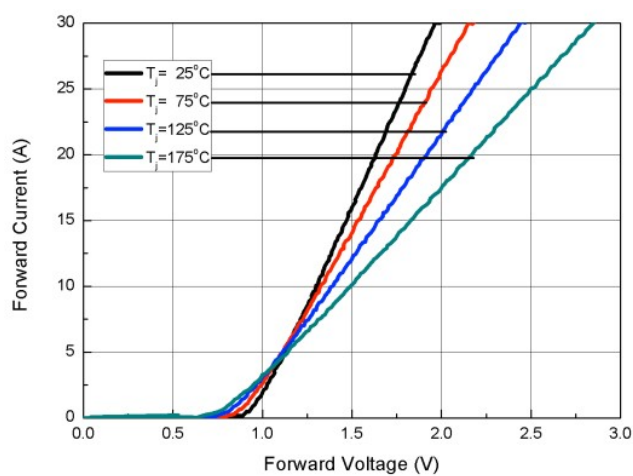
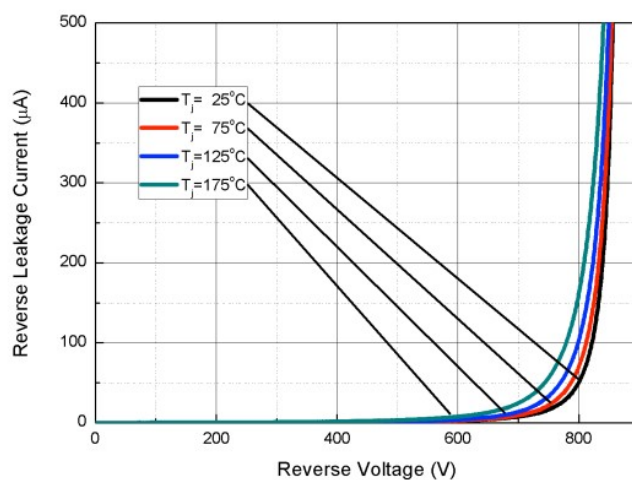
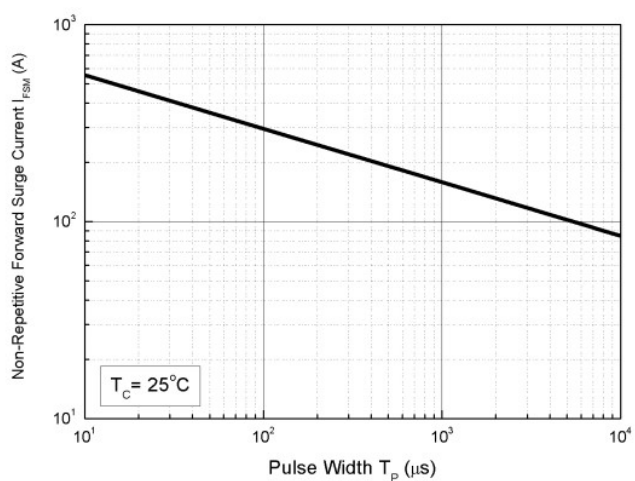
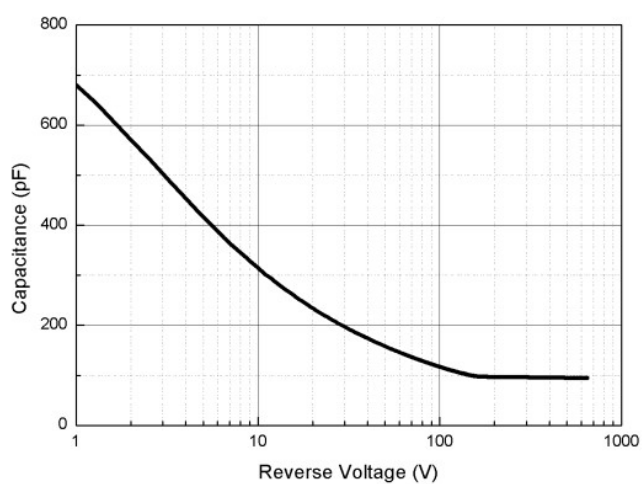
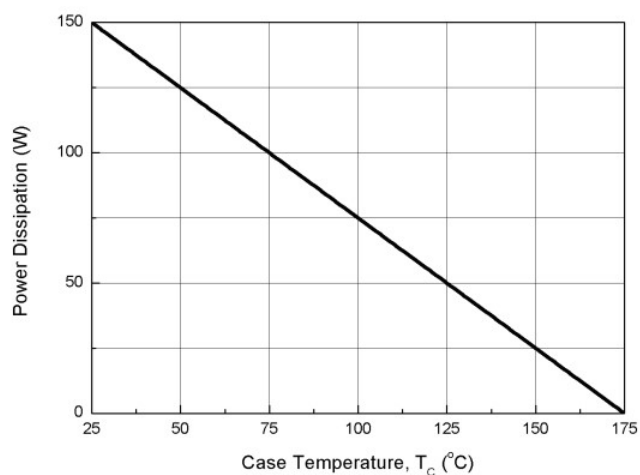
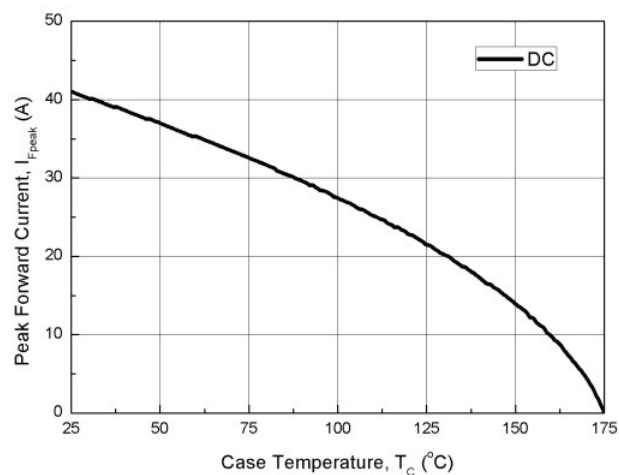
热特性 THERMAL CHARACTERISTICS

项 目 Parameter	符 号 Symbol	最小值 Value(min)	最大值 Value(max)	单 位 Unit
结到管壳的热阻 Thermal resistance from junction to case	TO-220C2L $R_{th(j-c)}$		2.1	$^\circ C/W$





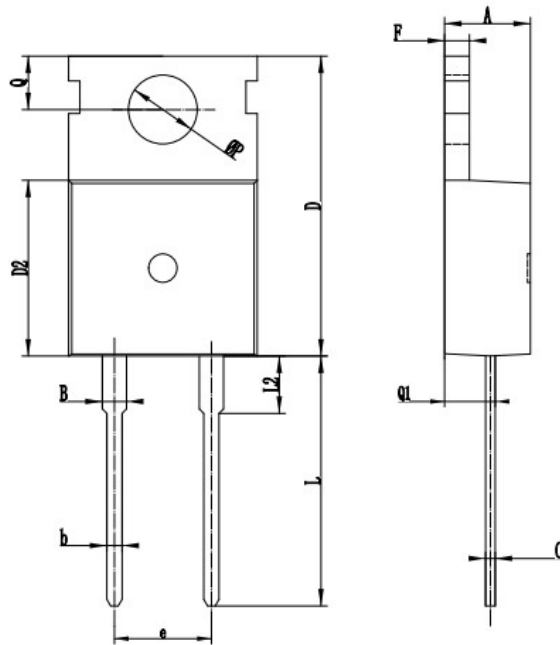
特征曲线 ELECTRICAL CHARACTERISTICS (curves)

 I_F vs V_F  I_R vs V_R  I_{FSM} vs T_P  C_T vs V_R  P_D vs T_C  I_{Fpeak} vs T_C 



外形尺寸 PACKAGE MECHANICAL DATA
TO-220C2L

单位 Unit : mm



符号 symbol	单位: mm	
	MIN	MAX
A	4.30	4.70
B	1.22	1.40
b	0.70	0.95
c	0.40	0.65
D	15.20	16.20
D2	9.00	9.40
E	9.70	10.10
e	4.78	5.38
F	1.25	1.40
L	12.60	13.60
L2	2.80	3.20
Q	2.60	3.00
Q1	2.20	2.60
P	3.50	3.80



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