



SC20J120BS

主要参数 MAIN CHARACTERISTICS

V_{RRM}	1200V
$I_F, T_c \leq 150^{\circ}C$	20A
Q_c Typ	114nC

用途

- 光伏逆变器
- 开关模式电源
- 高压 DC/DC 转换器
- 电池充电器
- 电动驱动
- 不间断电源

APPLICATIONS

- Solar Inverters
- Switch Mode Power Supplies
- High Voltage DC/DC Converters
- Battery Chargers
- Motor Drives
- Uninterruptable power supplies

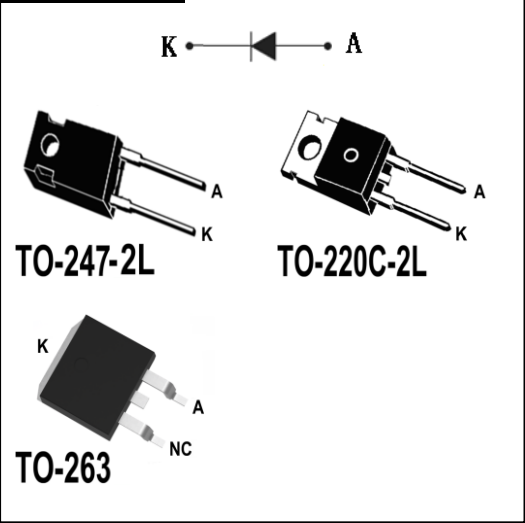
产品特性

- 高阻断电压
- 零反向恢复电流
- 零正向恢复电压
- 高频率应用
- 不受温度影响的开关特性
- 快速开关
- 正温度系数
- RoHS 产品

FEATURES

- High Blocking Voltage
- Zero Reverse Recovery Current
- Zero Forward Recovery Voltage
- High-Frequency Operation
- Temperature-Independent Switching Behavior
- Extremely Fast Switching
- Positive Temperature Coefficient on V_F
- RoHS product

封装 Package



订货信息 ORDER MESSAGE

订 货 型 号 Order codes	印 记 Marking	封 装 Package
无卤-条管 Halogen-Free-Tube		
SC20J120BS-GL-BR	SC20J120BS	T0-247-2L
SC20J120BS-CL-BR	SC20J120BS	T0-220C-2L
SC20J120BS-S-BR	SC20J120BS	T0-263



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

项 目 Parameter	符 号 Symbol	数 值 Value	单位 Unit
反向重复峰值电压 Repetitive Peak Reverse Voltage	V_{RRM}	1200	V
反向浪涌峰值电压 Surge Peak Reverse Voltage	V_{RSM}	1200	V
反向直流电压 DC Blocking Voltage	V_{DC}	1200	V
正向平均电流 Continuous Forward Current	I_F $T_c=25^{\circ}\text{C}$ $T_c=150^{\circ}\text{C}$	49 20	A
正向非重复浪涌电流 Non-Repetitive Peak Forward Surge Current	I_{FSM}	120	A
正向重复浪涌电流 Repetitive Peak Forward Surge Current	I_{FRM}	80	A
最高结温及存储温度 Operating and Storage Temperature Range	T_J, T_{STG}	$-55\sim+175$	$^{\circ}\text{C}$
引线最高焊接温度 Maximum Lead Temperature for Soldering Purposes	T_L	260	$^{\circ}\text{C}$





电特性 ELECTRICAL CHARACTERISTICS

项 目 Parameter	符 号 Symbol	测试条件 Tests conditions	最小 Min	典型 Typ	最大 Max	单位 Units
正向电压 Forward Voltage	V_F	$I_F = 20A \ T_J=25^{\circ}C$ $I_F = 20A \ T_J=175^{\circ}C$	—	1.42 1.94	1.7 3.0	V
反向电流 Reverse Current	I_R	$V_R = 1200V \ T_J=25^{\circ}C$ $V_R = 1200V \ T_J=175^{\circ}C$	—	5 20	50 200	μA
总储存电荷 Total Capacitive Charge	Q_C	$V_R = 800V, \ T_J = 25^{\circ}C$ $Q_C = \int_0^{V_R} C(V)dV$	—	114	—	nC
总电容 Total Capacitance	C	$V_R = 0V, \ T_J = 25^{\circ}C, \ f = 1MHz$ $V_R = 400V, \ T_J = 25^{\circ}C, \ f = 1MHz$ $V_R = 800V, \ T_J = 25^{\circ}C, \ f = 1MHz$	—	1300 103 85	—	pF

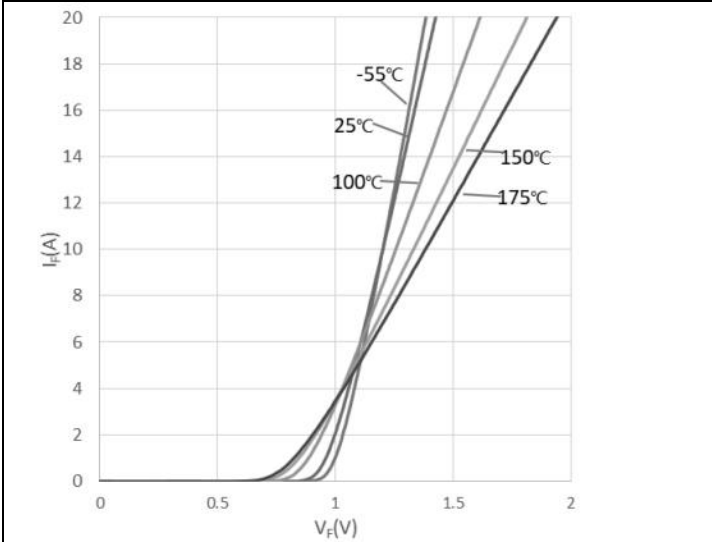
热特性 THERMAL CHARACTERISTICS

项 目 Parameter	符 号 Symbol	典型值 Typ		单 位 Unit
		T0-247-2L	T0-220C-2L	
结到管壳的热阻 Thermal Resistance Junction to Case	$R_{th(j-c)}$	0.55	TBD	$^{\circ}C/W$

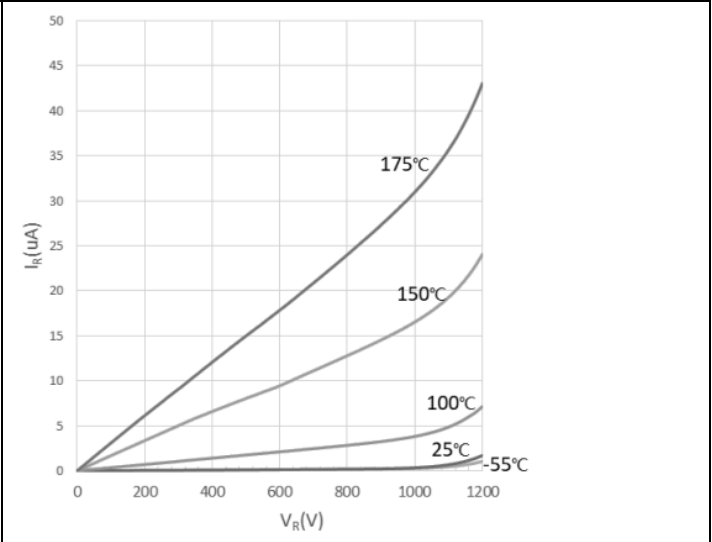




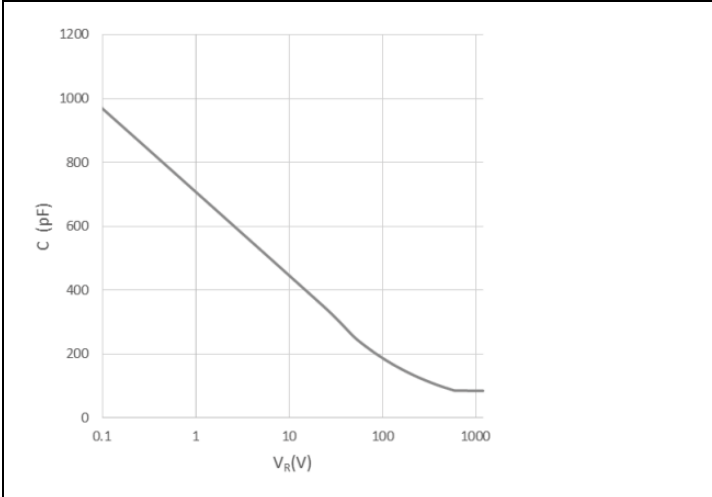
典型性能 Typical Performance



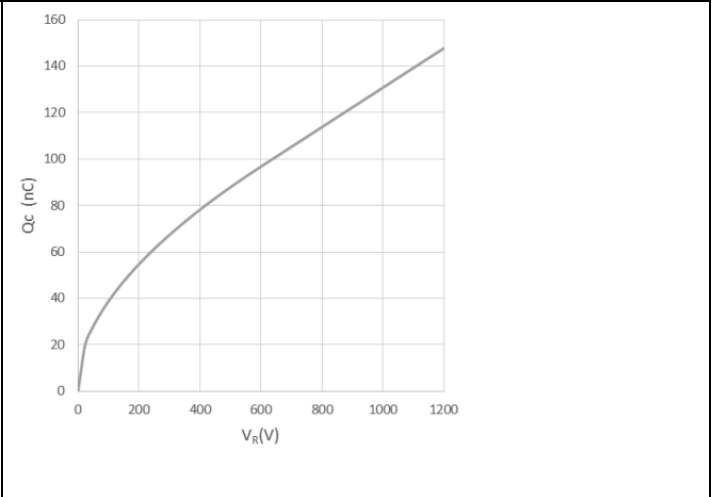
Forward Characteristics



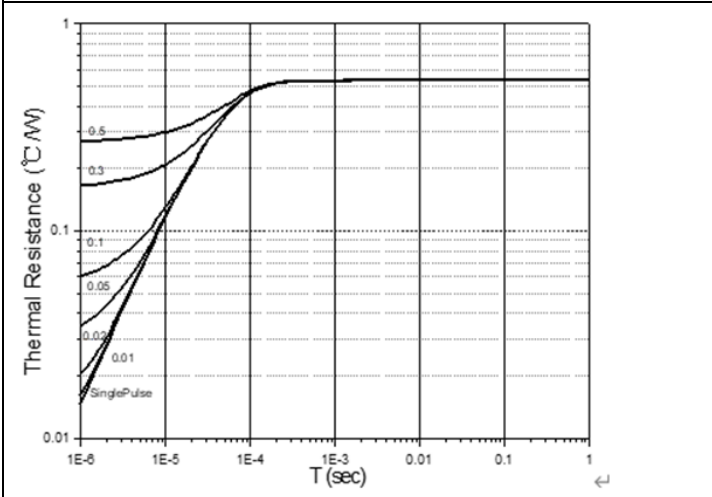
Reverse Characteristics



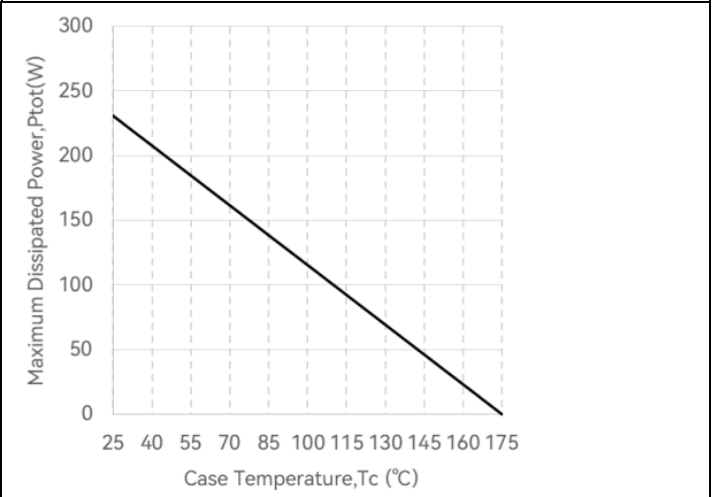
Capacitance vs. Reverse Voltage



Capacitance Charge vs. Reverse Voltage



Transient Thermal Impedance



Power Derating

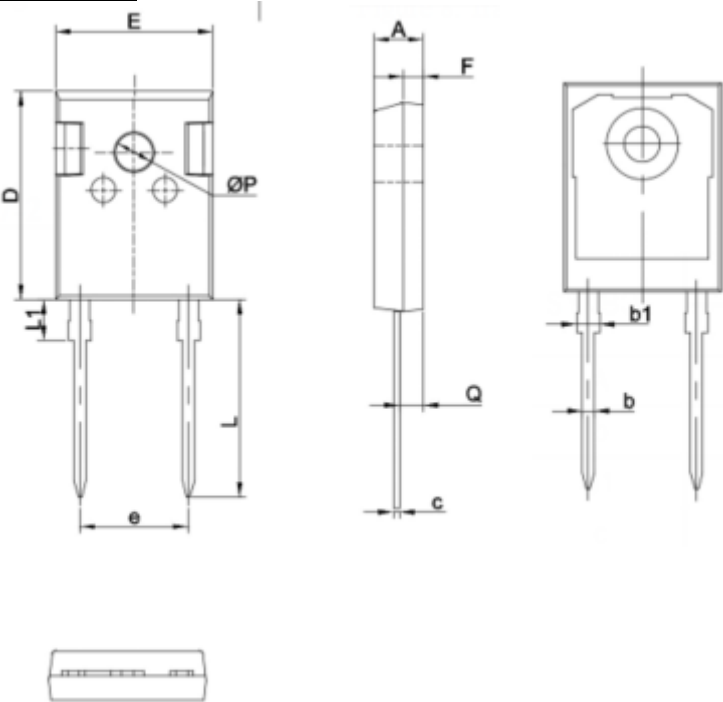




外形尺寸 PACKAGE MECHANICAL DATA

T0-247-2L

单位 Unit: mm



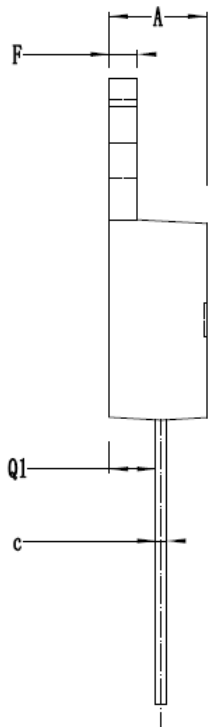
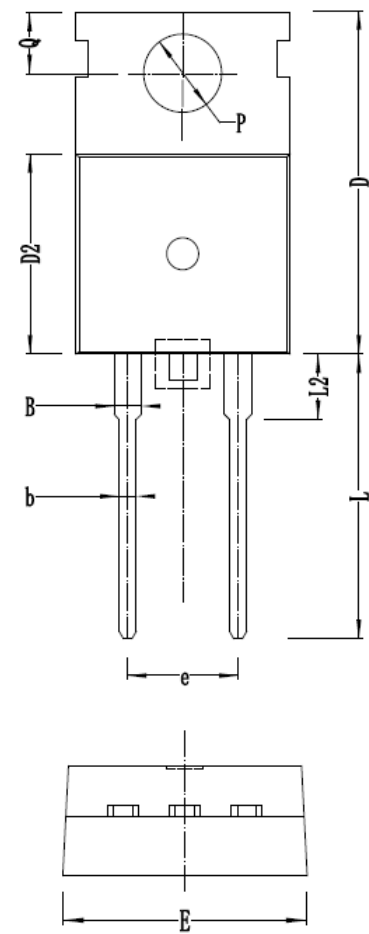
SYMBOL	MM	
	MIN	MAX
A	4.80	5.20
b	1.10	1.30
b1	1.95	2.25
c	0.50	0.70
D	20.80	21.20
E	15.60	16.00
F	1.85	2.15
e	10.73	11.03
L	19.62	20.22
L1	3.93	4.33
ΦP	3.40	3.80
Q	2.26	2.56
Q1	6.00	6.40



外形尺寸 PACKAGE MECHANICAL DATA

T0-220C-2L

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
ΦP	3.50	3.80
Q	2.60	3.00
Q1	2.20	2.60

注:

1. 虚线区域代表, 此位置有、无余留, 均为我司受控外形;

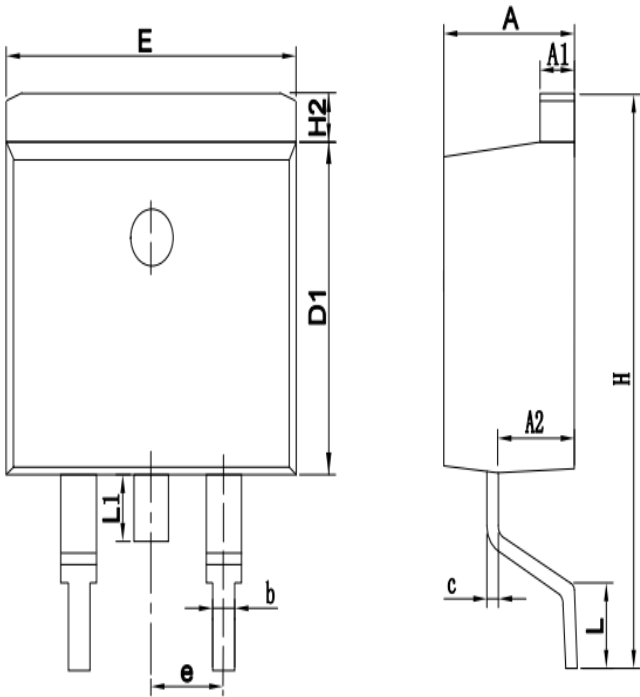




外形尺寸 PACKAGE MECHANICAL DATA

T0-263

单位 Unit: mm



SYMBOL	MM	
	MIN	MAX
A	4.30	4.80
A1	1.12	1.42
A2	2.54	2.84
b	0.67	1.00
c	0.29	0.52
D1	8.40	9.00
E	9.80	10.46
e	2.54BSC	
H	14.00	16.00
H2	1.12	1.45
L	1.50	3.10
L1	1.45	1.70





注意事项

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4. 本说明书如有版本变更不另外告知。

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3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
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