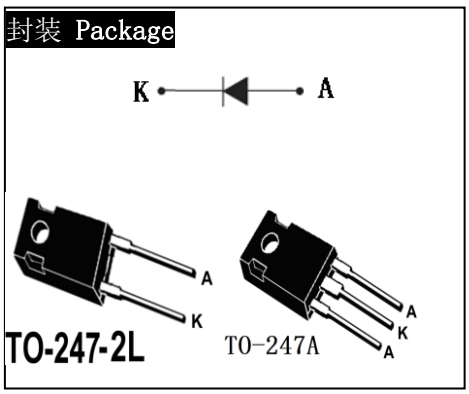
SC30J065BS

主要参数 MAIN CHARACTERISTICS

V_{RRM}	650V
I_F, T_C≤150℃	30A
Q_C Typ	94nC

封装 Package



用途 APPLICATIONS

- ●光伏逆变器 ●Solar Inverters
- ●开关模式电源 ●Switch Mode Power Supplies
- ●高压 DC/DC 转换器 ●High Voltage DC/DC Converters
- ●电池充电器 ●Battery Chargers
- ●不间断电源 ●Uninterruptable power supplies

产品特性 FEATURES

- ●高阻断电压 ●High Blocking Voltage
- ●零反向恢复电流 ●Zero Reverse Recovery Current
- ●零正向恢复电压 ●Zero Forward Recovery Voltage
- ●高频率应用 ●High-Frequency Operation
- ●不受温度影响的开关特性 ●Temperature-Independent Switching Behavior
- ●快速开关 ●Extremely Fast Switching
- ●正温度系数 ●Positive Temperature Coefficient on V_F
- ●RoHS 产品

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		
SC30J065BS-GL-BR	SC30J065BS	TO-247-2L
SC30J065BS-GQ-BR	SC30J065BS	TO-247A

绝对最大额定值 ABSOLUTE RATINGS (Tc=25℃)

项 目 Parameter	符 号 Symbol	数 值 Value	单位 Unit	测试条件 Test Conditions
反向重复峰值电压 Repetitive Peak Reverse Voltage	V_{RRM}	650	V	
反向浪涌峰值电压 Surge Peak Reverse Voltage	V_{RSM}	650	V	
反向直流电压 DC Blocking Voltage	V_{DC}	650	V	
正向平均电流 Continuous Forward Current	I_F	84 38 30	A	Tc=25℃ Tc=135℃ Tc=147℃
正向重复浪涌电流 Repetitive Peak Forward Surge Current	I_{FRM}	90	A	T_C=25°C, t_P=10ms, Half Sine Wave
正向非重复浪涌电流 Non-Repetitive Peak Forward Surge Current	I_{FSM}	180 150	A	T_C=25°C, t_P=10ms, Half Sine Wave T_C=150°C, t_P=10ms, Half Sine Wave
耗散功率 Power Dissipation	P_{tot}	272 118 220 96	W	T_C=25°C TO-247-2L T_C=110°C TO-247-2L T_C=25°C TO-247A T_C=110°C TO-247A
I^2 t 值 I^2 t for fusing	$\int i^2 dt$	162	A^2 s	T_C=25°C, t_P=10ms, Half Sine Wave
最高结温及存储温度 Operating and Storage Temperature Range	T_J, T_{STG}	-55～ +175	℃	
引线最高焊接温度 Maximum Lead Temperature for Soldering Purposes	T_L	260	℃	

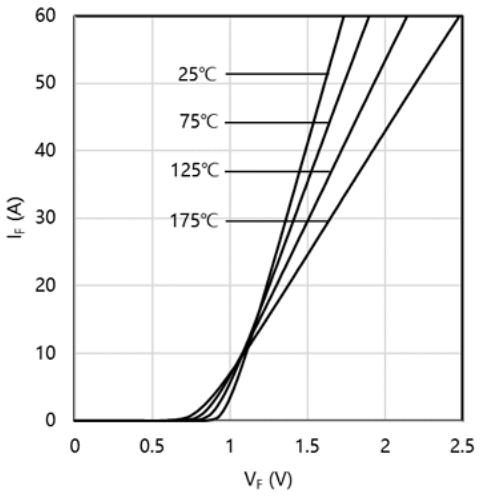
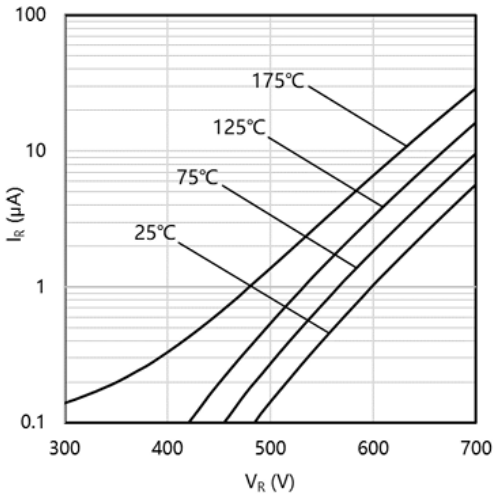
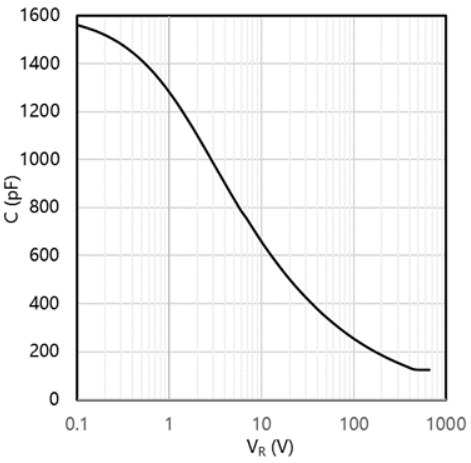
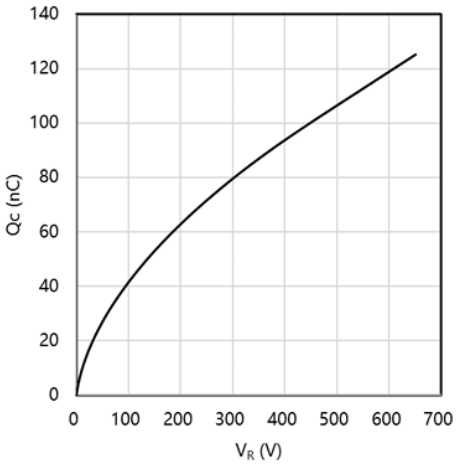
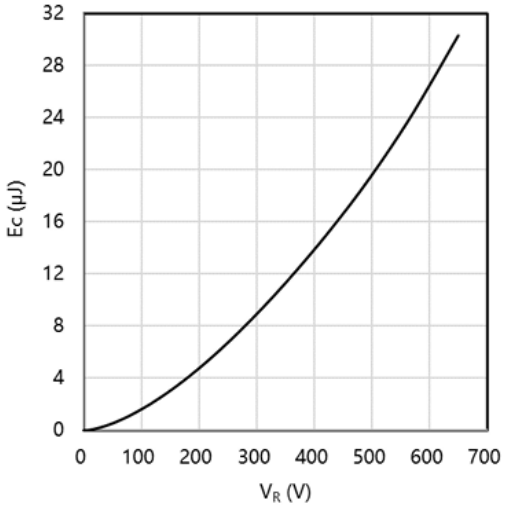
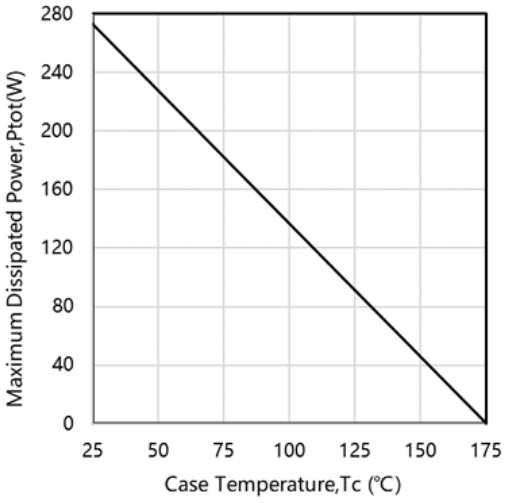
电特性 ELECTRICAL CHARACTERISTICS

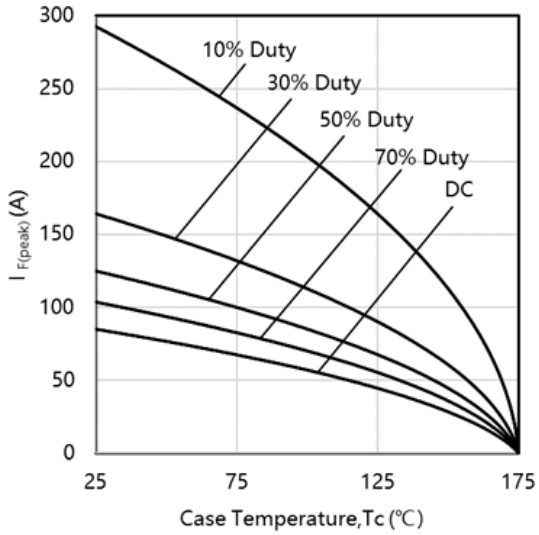
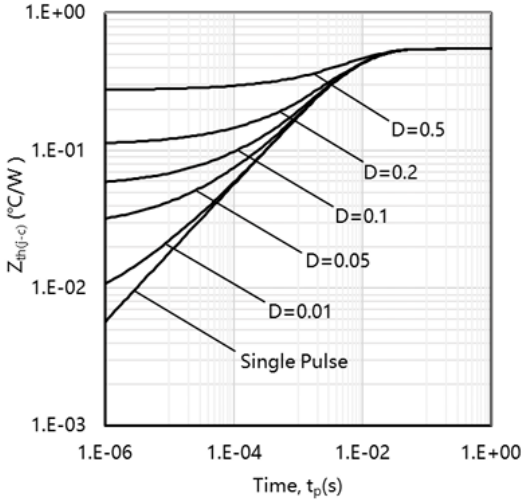
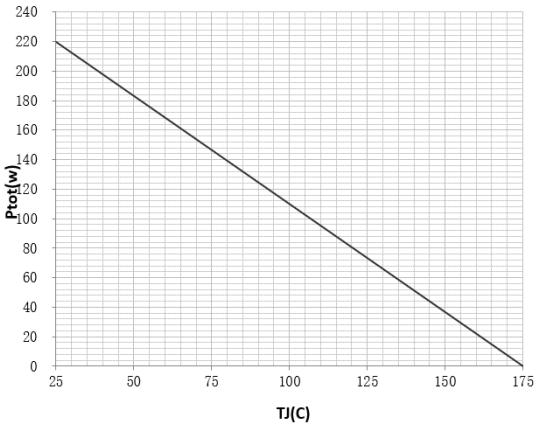
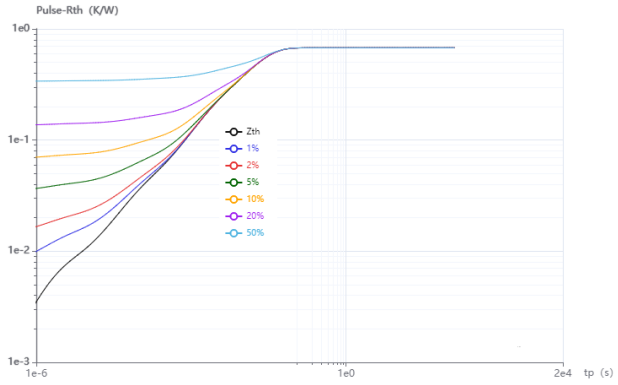
项　　目 Parameter	符　号 Symbol	测试条件 Tests conditions	最小 Min	典型 Typ	最大 Max	单位 Units
正向电压 Forward Voltage	V_F	I_F =30A T_J=25° C I_F =30A T_J=175° C	-	1.36 1.65	1.63 2.0	V
反向电流 Reverse Current	I_R	V_R = 650V T_J=25° C V_R = 650V T_J=175° C	-	3 14	80 200	μA
总储存电荷 Total Capacitive Charge	Q_C	V_R = 400V, T_J = 25° C, I_F=30A $Q_C=\int_0^{V_R} C(V)dV$	-	94	-	nC
总电容 Total Capacitance	C	V_R = 1 V, T_J = 25° C, f = 1 MHz V_R = 200V, T_J = 25°C, f = 1 MHz V_R = 400V, T_J = 25°C, f = 1 MHz	-	1285 185 132	-	pF
电容储存能量 Capacitance Stored Energy	E_C	V_R =400 V	-	14	-	μJ
单脉冲雪崩能量 Single Pulsed Avalanche Energy	E_{AS}	T_C = 25℃, V_D=50V, L=0.5mH, I_{AS}=15.5A	-	60	-	mJ

热特性 THERMAL CHARACTERISTICS

项　　目 Parameter	符　号 Symbol	典型值 Typ		单 位 Unit
		TO-247-2L	TO-247A	
结到管壳的热阻 Thermal Resistance Junction to Case	$R_{th(j-c)}$	0.55	0.68	℃/W

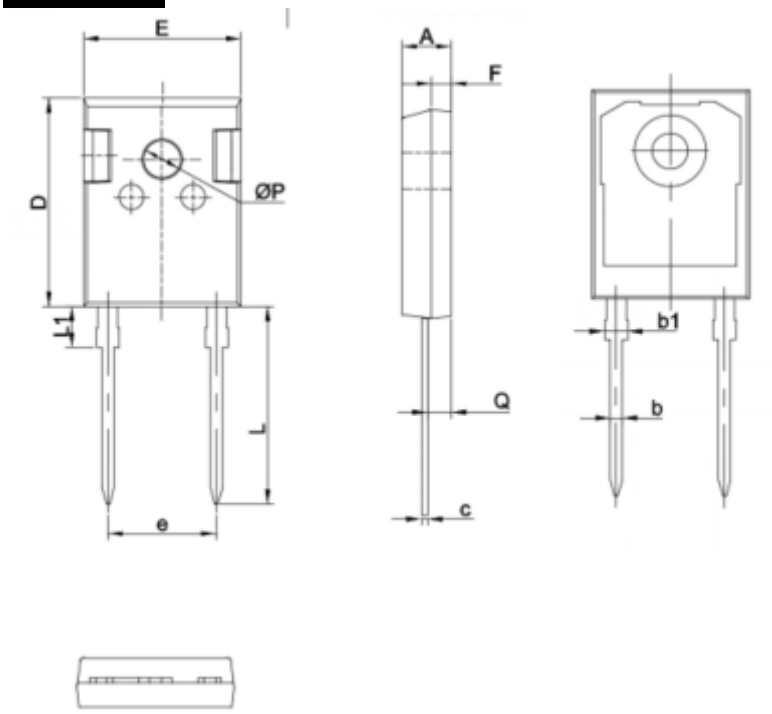
典型性能 Typical Performance

Forward Characteristics	Reverse Characteristics
	
Capacitance vs. Reverse Voltage	**Capacitance Charge vs. Reverse Voltage**
	
Capacitance Stored Energy	**Power Derating (TO-247-2L)**
	

Current Derating	Transient Thermal Impendance （TO-247-2L）
	
Power Derating（TO-247A）	Transient Thermal Impendance （TO-247A）
	

外形尺寸 PACKAGE MECHANICAL DATA

TO-247-2L



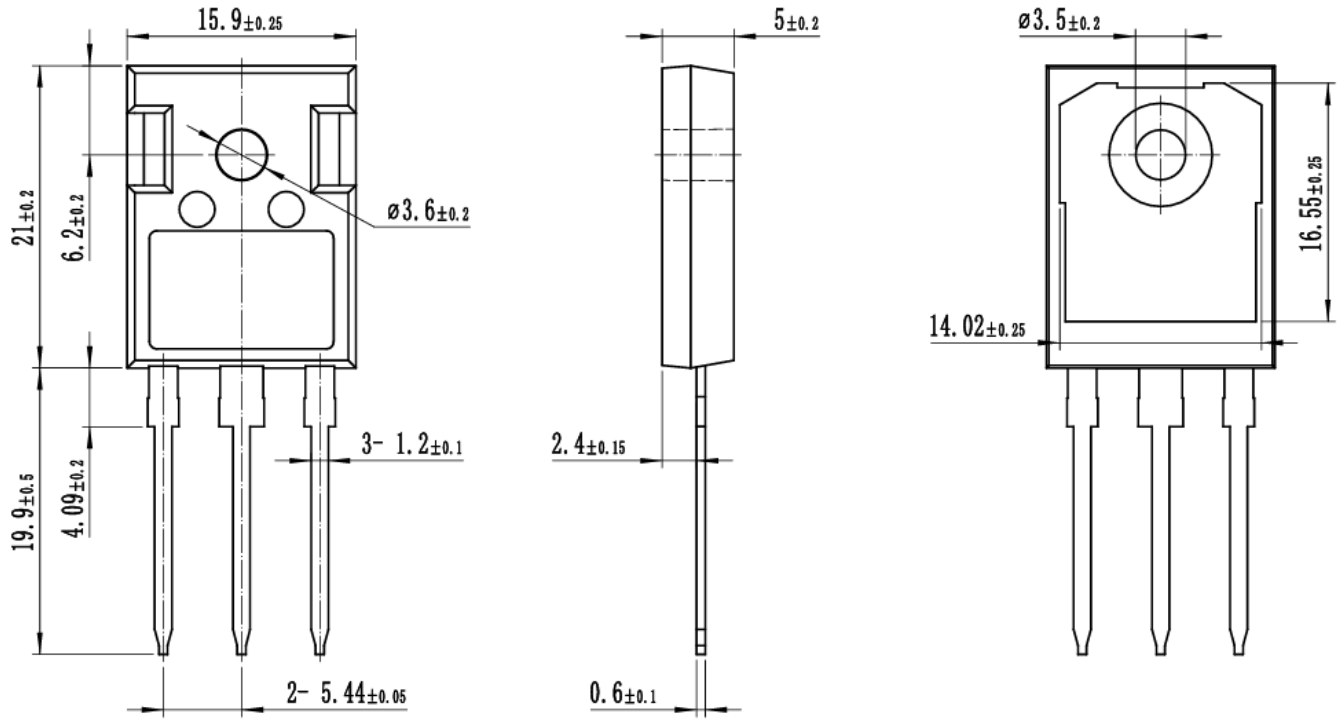
单位 Unit：mm

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

外形尺寸 PACKAGE MECHANICAL DATA

TO-247A

单位 Unit：mm



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联系方式

吉林华微电子股份有限公司

公司地址：吉林省吉林市深圳街 99 号

邮编：132013

总机：86-432-64678411

传真：86-432-64665812

网址：www.hwdz.com.cn

CONTACT

JILIN SINO-MICROELECTRONICS CO., LTD.

ADD: No.99 Shenzhen Street, Jilin City, Jilin Province, China.

Post Code: 132013

Tel： 86-432-64678411

Fax：86-432-64665812

Web Site：www.hwdz.com.cn