



30F120CT

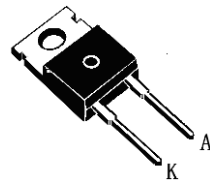
主要参数 MAIN CHARACTERISTICS

IF(AV)	30A
VRRM	1200 V
VF(typ)	2.8V
Trr (typ)	40ns

封装 Package

K  A

TO-220C2L



用途

- 吸收回路
- 开关电源
- UPS
- 高频开关器件并联二极管

APPLICATIONS

- Snubber diode
- Switch power supply
- UPS
- Antiparalle Diode for high frequency switching devices

产品特性

- 低正向压降
- 低功耗, 高效率
- 高可靠性

FEATURES

- Low forward voltage drop
- Low power loss, high efficiency
- High reliability

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		
30F120CT-CL-B	30F120CT-CL-BR	30F120CT	TO-220C2L



**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 Peak Repetitive Reverse Voltage	V_{RRM}	1200	V
平均正向整流电流 $T_c=125^\circ\text{C}$ Average Forward Rectified Current	$I_{F(AV)}$	30	A
非重复浪涌正向电流 Non-Repetitive Surge Forward Current $t=8.3\text{ms}$	I_{FSM}	210	A
雪崩耐量 Avalanche Energy (L=40mH)	W_{AVL}	20	mJ
结温 Junction Temperature	T_j	-55~+150	$^\circ\text{C}$
存储温度 Storage temperature range	T_{STG}	-55~+150	$^\circ\text{C}$

电特性 ELECTRICAL CHARACTERISTICS ($T_c=25^\circ\text{C}$ unless otherwise specified)

项 目 Parameter	测 试 条 件 Tests conditions		最 小 值 Value(min)	典 型 值 Value(typ)	最 大 值 Value(max)	单 位 Unit
V_R	$I_R=50\mu\text{A}$		1200	-	-	V
I_R	$T_j=25^\circ\text{C}$	$V_R=V_{RRM}$	-	-	50	μA
	$T_j=125^\circ\text{C}$		-	-	500	μA
V_F	$T_j=25^\circ\text{C}$	$I_F=30\text{A}$	-	2.8	3.4	V
	$T_j=125^\circ\text{C}$		-	-	2.9	V
T_{rr}	$I_F=1\text{A}, V_R=30\text{V}, di_F/dt=-100\text{A}/\mu\text{s}$		-	40	45	ns
T_{rr}	$I_F=30\text{A}, V_R=200\text{V}, di_F/dt=200\text{A}/\mu\text{s}$ $T_j=25^\circ\text{C}$		-	43	-	ns
Q_{rr}			-	79	-	nc
I_{RM}			-	3.3	-	A
T_{rr}	$I_F=30\text{A}, V_R=200\text{V}, di_F/dt=200\text{A}/\mu\text{s}$ $T_j=125^\circ\text{C}$		-	207	-	ns
Q_{rr}			-	583	-	nc
I_{RM}			-	6.2	-	A

热特性 THERMAL CHARACTERISTICS (maximum) Per Diode

项 目 Parameter	符 号 Symbol	封 装 Package	最 大 值 Value(max)	单 位 Unit
结到管壳的热阻 Thermal Resistance Junction to Case	$R_{th(j-c)}$	TO-220C2L	1.3	$^\circ\text{C}/\text{W}$





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 TYPICAL FORWARD CHARACTERISTICS

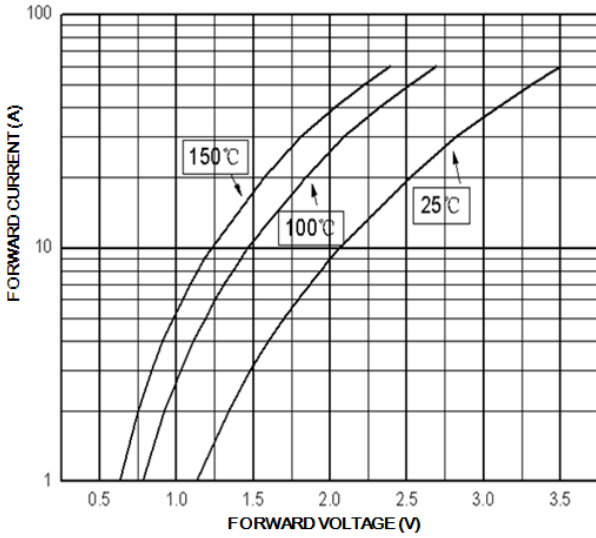


Fig.2 TYPICAL REVERSE CHARACTERISTICS

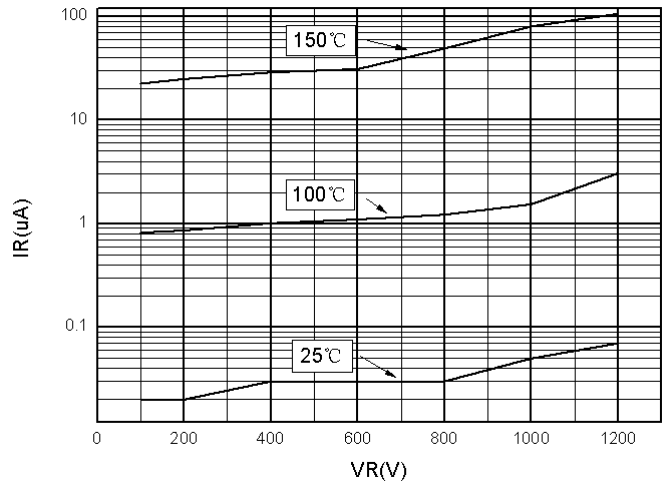


Fig.3 Peak reverse recovery current versus diF/dt

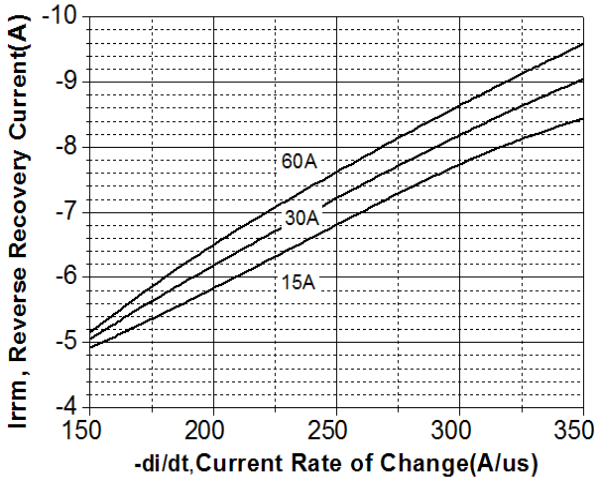


Fig.4 TYPICAL JUNCTION CAPACITANCE

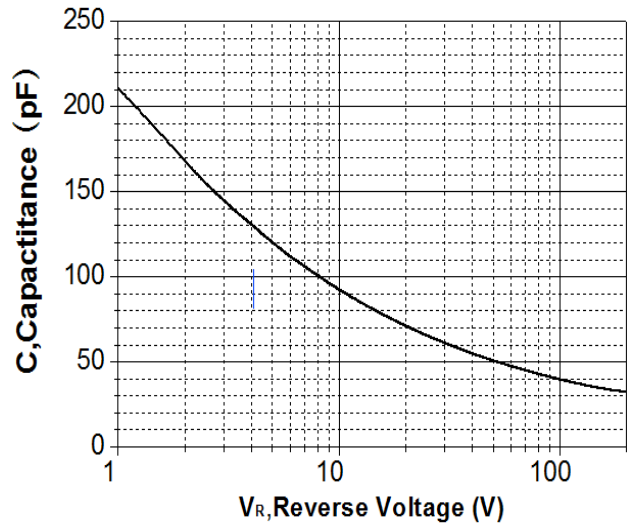
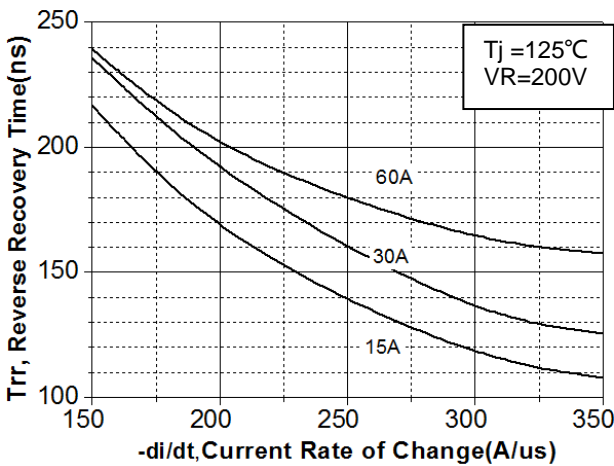


Fig.5 Reverse recovery time versus diF/dt

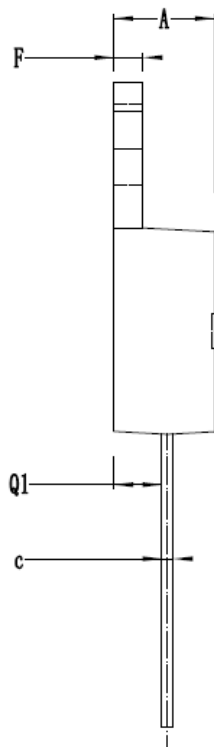
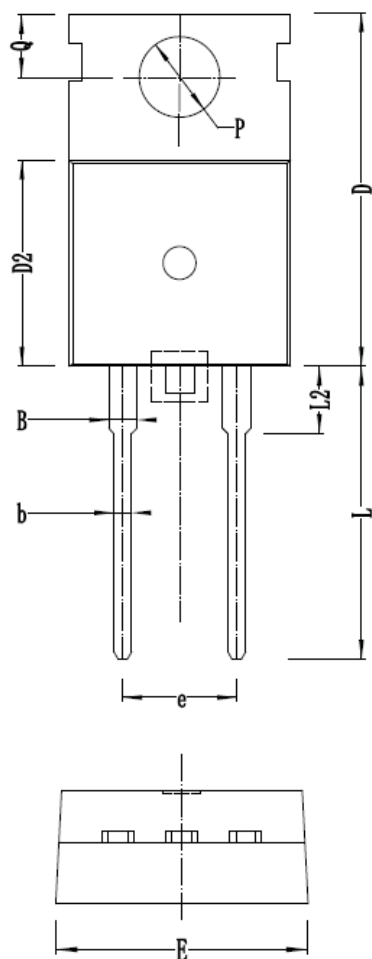




外形尺寸 PACKAGE MECHANICAL DATA

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
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;





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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

