



# FP30F120AA

## 主要参数 MAIN CHARACTERISTICS

IF(AV)	30A
VRRM	1200V
VF(typ)	2.7V
Trr (typ)	40ns

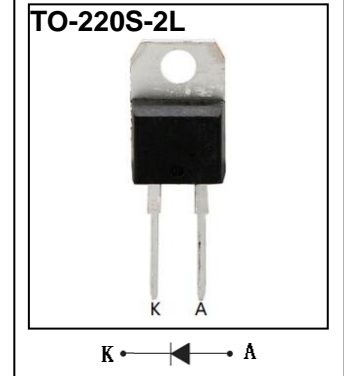
## 用途

- 逆变器
- 开关电源
- PFC
- 反并联二极管

## APPLICATIONS

- Inverters
- Switch power supply
- PFC
- Anti Parallel Diode

## 封装 Package



## 产品特性

- 内绝缘封装
- 低功耗, 高效率
- 高可靠性

## FEATURES

- Internal isolated package
- 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		
FP30F120AA-CF-B	FP30F120AA-CF-BR	FP30F120AA	TO-220S-2L



## 绝对最大额定值 ABSOLUTE RATINGS (Tc=25°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 <sub>RRM</sub>	1200	V
平均正向整流电流 T <sub>C</sub> =100°C Average Forward Rectified Current	I <sub>F(AV)</sub>	30	A
非重复浪涌正向电流 Non-Repetitive Surge Forward Current t=8.3ms	I <sub>FSM</sub>	210	A
结温 Junction Temperature	T <sub>j</sub>	-50~+150	°C
存储温度 Storage temperature range	T <sub>STG</sub>	-50~+150	°C

## 电特性 ELECTRICAL CHARACTERISTICS (Tc=25°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 <sub>R</sub>	I <sub>R</sub> =50μA		1200			V
I <sub>R</sub>	T <sub>j</sub> =25°C	V <sub>R</sub> =V <sub>RRM</sub>			50	μA
	T <sub>j</sub> =125°C				250	μA
V <sub>F</sub>	T <sub>j</sub> =25°C	I <sub>F</sub> =30A		2.70	3.40	V
	T <sub>j</sub> =125°C			2.14	2.80	V
T <sub>rr</sub>	I <sub>F</sub> =1A, V <sub>R</sub> =30V, di <sub>F</sub> /dt=-100A/μs T <sub>j</sub> =25°C			40		ns
T <sub>rr</sub>				43		ns
Q <sub>rr</sub>	I <sub>F</sub> =30A, V <sub>R</sub> =200V, di <sub>F</sub> /dt=-200A/μs T <sub>j</sub> =25°C			79		nc
I <sub>R</sub> RM				3.3		A
T <sub>rr</sub>				207		ns
Q <sub>rr</sub>	I <sub>F</sub> =30A, V <sub>R</sub> =200V, di <sub>F</sub> /dt=-200A/μs T <sub>j</sub> =125°C			583		nc
I <sub>R</sub> RM				6.2		A

## 热特性 THERMAL CHARACTERISTICS (maximum) Per Diode

项 目 Parameter	符 号 Symbol	最大值 Value(max)	单 位 Unit
结到管壳的热阻 Thermal Resistance Junction to Case	R <sub>th(j-c)</sub>	1.3	°C/W





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 Typical Forward Characteristics

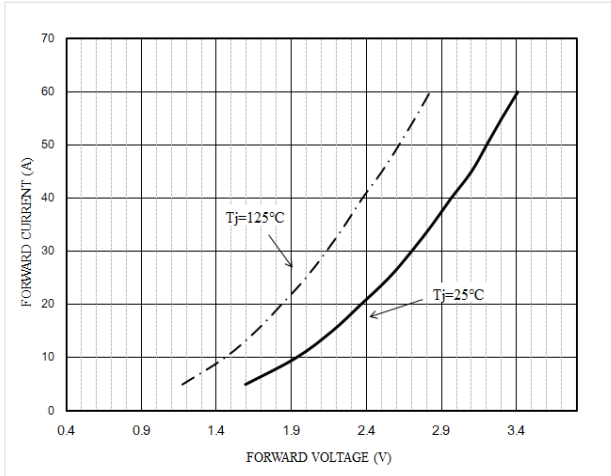


Fig.2 Typical Reverse Characteristics

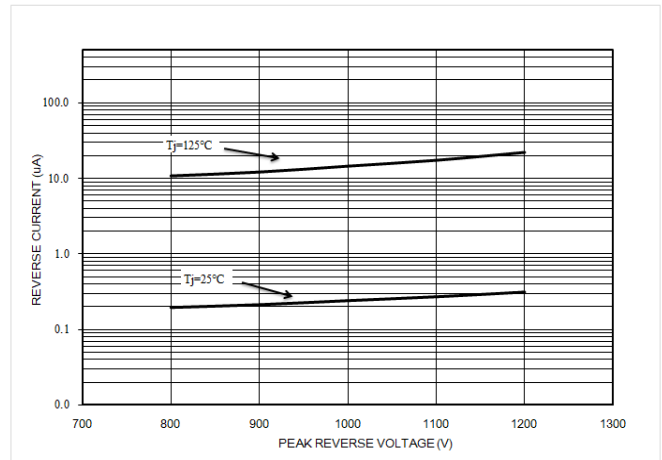


Fig.3 Reverse recovery time versus di/dt

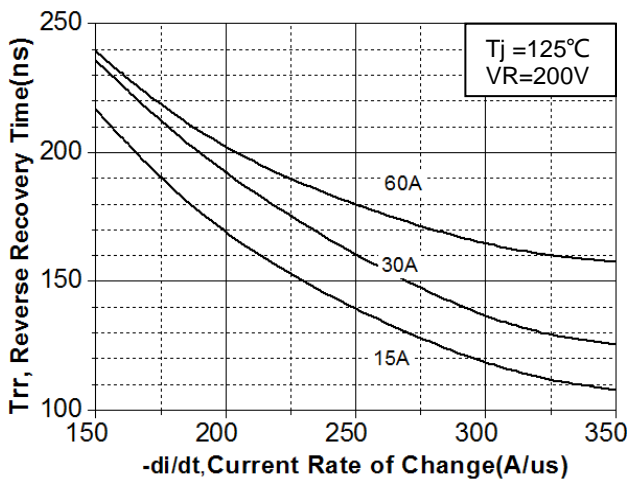
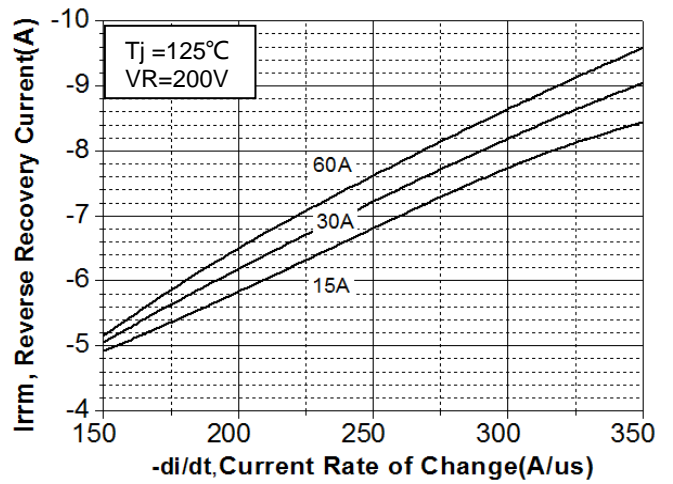


Fig.4 Peak reverse recovery current versus di/dt

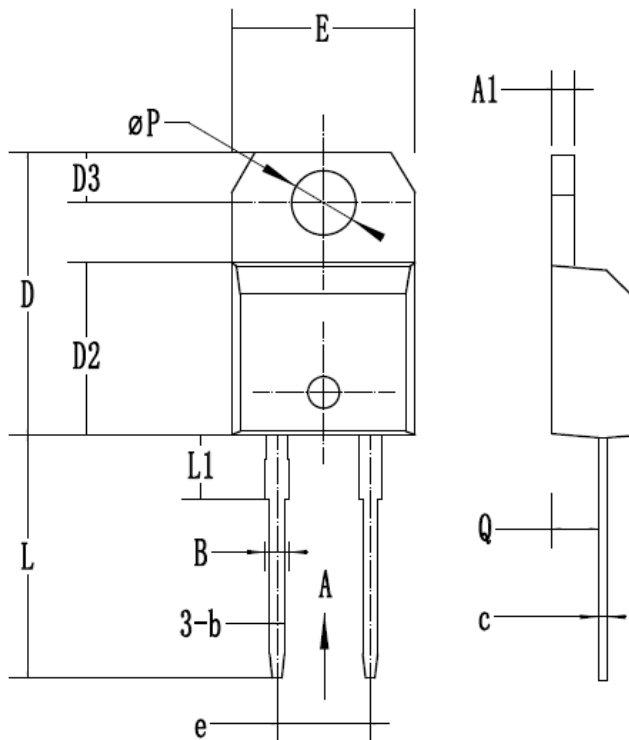




外形尺寸 PACKAGE MECHANICAL DATA

**TO-220S-2L**

单位 Unit : mm



SYMBOL	Unit (mm)	
	MIN	MAX
*A	4.28	4.66
*A1	1.10	1.40
*B	1.20	1.60
*b	0.66	0.96
*c	0.35	0.65
*D	14.90	16.40
*D2	8.50	9.70
*D3	2.54	3.06
*E	9.63	10.63
*e	4.78	5.38
*L	13.00	14.00
*L1	3.40	4.00
*Q	2.35	2.75
* $\phi P$	3.55	4.06





### 注意事项

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3. 在电路设计时请不要超过器件的绝对最大额定值，否则会影响整机的可靠性。
4. 本说明书如有版本变更不另外告知。

### NOTE

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2. We strongly recommend customers check carefully on the trademark when buying our product, if there is any question, please don't be hesitate to contact us.
3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
4. Jilin Sino-microelectronics co., Ltd reserves the right to make changes in this. specification sheet and is subject to change without prior notice.

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