



12F20C3/HF3

主要参数 MAIN CHARACTERISTICS

$I_F(AV)$	12 (2×6) A
V_{RRM}	200 V
t_{rr}	20 ns (典型值 typ)
$V_F(max)$	0.9 V (典型值 typ)

用途

- 开关电源
- UPS

APPLICATIONS

- Switch power supply
- UPS

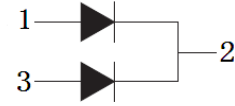
产品特性

- 共阴结构
- 低功耗，高效率
- 高可靠性
- 环保 (RoHS) 产品

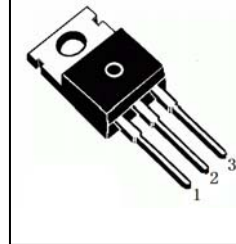
FEATSURE

- Common cathode structure
- Low power loss, high efficiency
- High reliability
- RoHS product

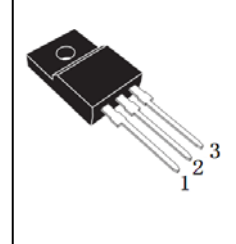
封装 Package



TO-220C



TO-220HF



订货信息 ORDER MESSAGE

订货型号 Order codes	印记 Marking	封装 Package	包装 Packaging	器件重量 Device Weight
12F20C3	12F20C3	TO-220C	条管 Tube	2.15 g(typ)
12F20HF3	12F20HF3	TO-220HF	条管 Tube	1.70 g(typ)





绝对最大额定值 ABSOLUTE RATINGS (Tc=25℃)

项 目 Parameter	符 号 Symbol	数 值 Value	单 位 Unit
最大反向重复峰值电压 Repetitive peak reverse voltage	V _{RRM}	200	V
正向平均整流电流 Average forward current	I _{F(AV)}	T _C =100℃ (TO-220C) 整个器件 per device 12	A
		T _C =100℃ (TO-220HF) 单 侧 per diode 6	
峰值单脉冲浪涌电流 Peak one Cycle Surge Forward Current(Non-Repetitive) t=10ms	I _{FSM}	60	A
结温 Junction Temperature	T _J	-55~+150	℃
储存温度 Storage temperature range	T _{STG}	-55~+150	℃

电特性 ELECTRICAL CHARACTERISTICS (Tc=25℃ 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 _{RRM}	I _R =50μA	200			V
I _R	T _j =25℃			10	μA
	T _j =125℃			200	μA
V _F	T _j =25℃		0.90	1.1	V
	T _j =125℃		0.86		V
T _{RR}	I _F =1A, V _R =30V, di _F /dt=-200A/μs		20	30	ns
	T _j =25℃	I _F =6A		28	ns
	T _j =125℃	V _R =100V di _F /dt=-200A/μs		40	ns

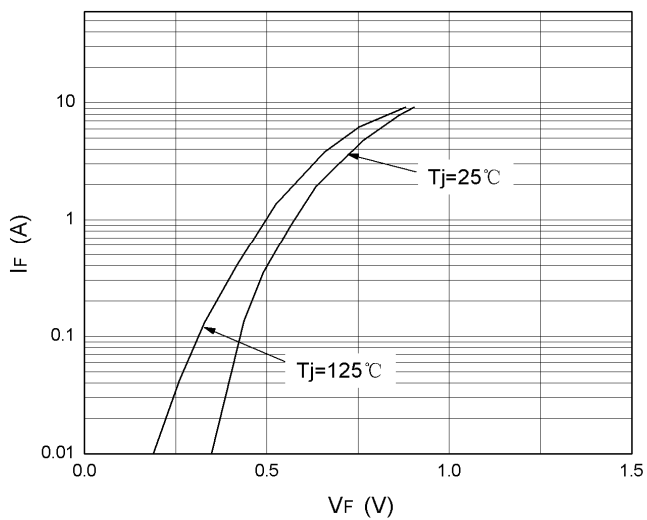
热特性 THERMAL CHARACTERISTICS

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	R _{th(j-c)}		4.0	℃/W
		TO-220C TO-220HF		

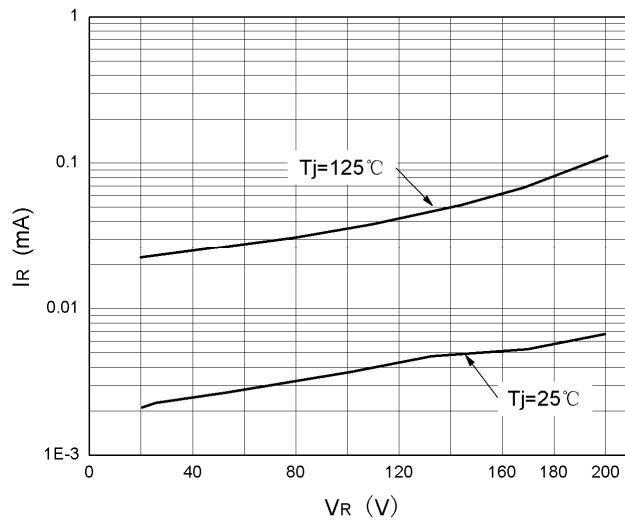




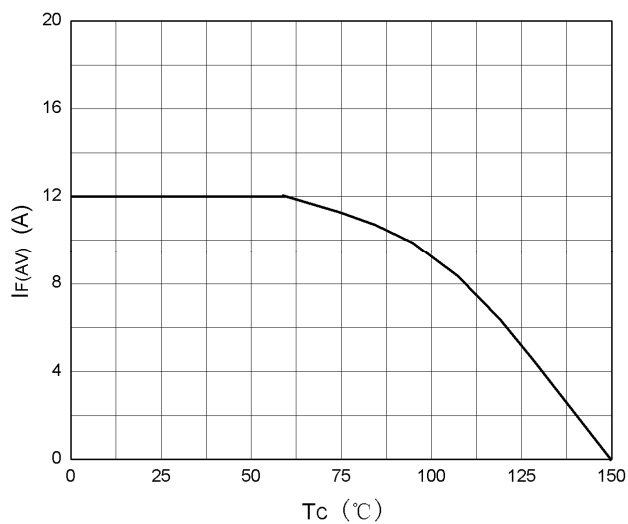
I_F vs V_F



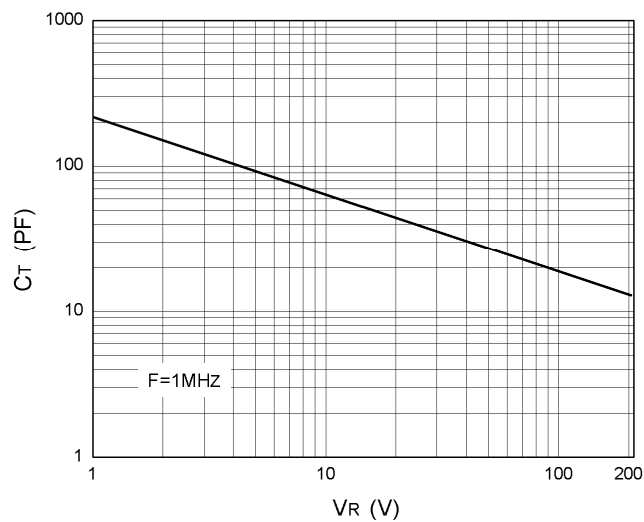
I_R vs V_R

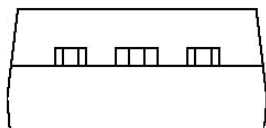
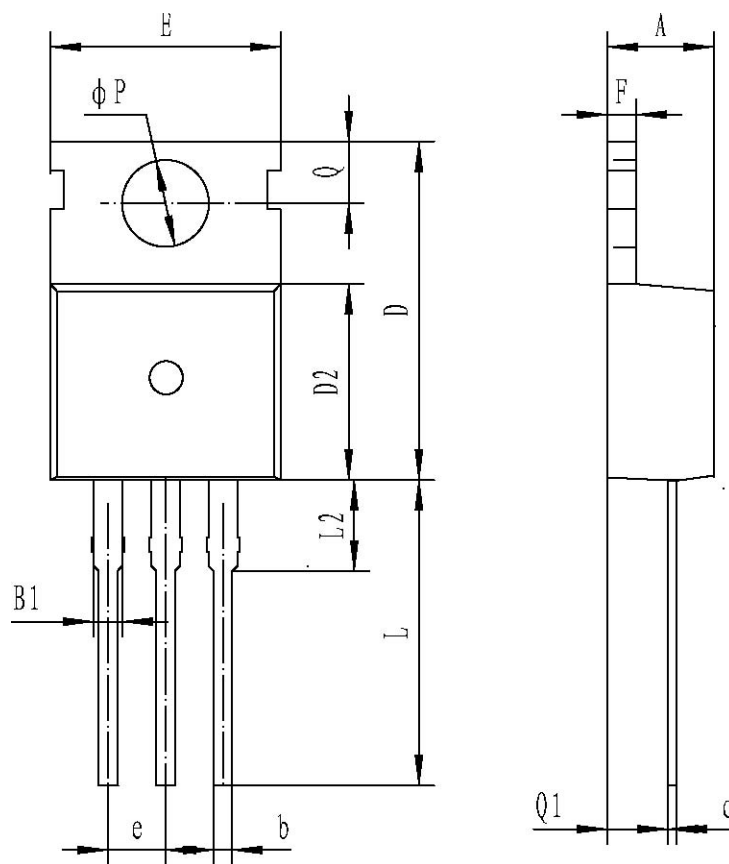


$I_{F(AV)}$ vs T_C



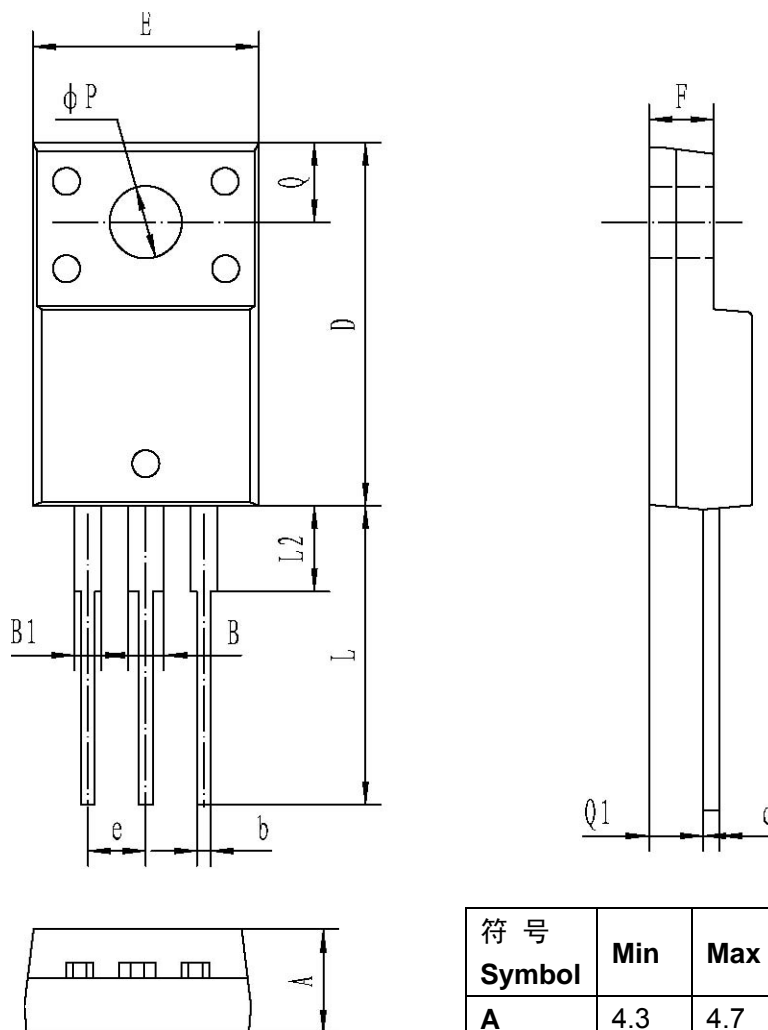
C_T vs V_R





符号 Symbol	Min	Max
A	4.3	4.7
B1	1.1	1.4
b	0.7	0.95
c	0.4	0.65
D	15.2	16.2
D2	9.0	9.4
E	9.7	10.1
e	2.54 (typ)	
F	1.25	1.4
L	12.58	13.58
L2	2.8	3.2
ϕP	3.4	3.8
Q	2.6	3.0
Q1	2.2	2.6





符号 Symbol	Min	Max
A	4.3	4.7
B	1.5	1.75
B1	1.1	1.35
b	0.5	0.75
c	0.5	0.75
D	14.5	15.5
E	9.96	10.36
e	2.54 (typ)	
F	2.8	3.2
L	12.7	13.7
L2	3.6	4.0
ϕP	3.3	3.7
Q	2.5	2.9
Q1	2.5	2.9



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- 2.购买时请认清公司商标，如有疑问请与公司本部联系。
- 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

NOTES

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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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附录 (Appendix): 修订记录 (Revision History)

日期 Date	旧版本 Last Rev.	新版本 New Rev.	修订内容 Description of Changes
2009-11-11	200811B	200911C	电话、传真号码升位；12F20X3 改为 12F20C3/HF3

