



# 16F20C3/HF3

## 主要参数 MAIN CHARACTERISTICS

$I_F(AV)$	16 (2×8) 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

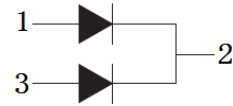
### 产品特性

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

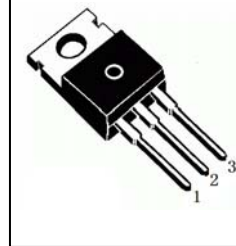
### FEATURES

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

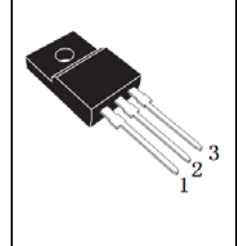
## 封装 Package



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
16F20C3	16F20C3	TO-220C	条管 Tube	2.15 g(typ)
16F20HF3	16F20HF3	TO-220HF	条管 Tube	1.70 g(typ)





## 绝对最大额定值 ABSOLUTE RATINGS (Tc=25°C)

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 <sub>RRM</sub>	200	V
正向平均整流电流 Average forward current	I <sub>F(AV)</sub>	T <sub>C</sub> =100°C (TO-220C) 整个器件 per device 16	A
		T <sub>C</sub> =100°C (TO-220HF) 单 侧 per diode 8	
峰值单脉冲浪涌电流 Peak one Cycle Surge Forward Current(Non-Repetitive) t=10ms	I <sub>FSM</sub>	80	A
结温 Junction Temperature	T <sub>J</sub>	-55~+150	°C
储存温度 Storage temperature range	T <sub>STG</sub>	-55~+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>RRM</sub>	I <sub>R</sub> =50μA	200			V
I <sub>R</sub>	T <sub>j</sub> =25°C			10	μA
	T <sub>j</sub> =125°C			200	μA
V <sub>F</sub>	T <sub>j</sub> =25°C		0.90	1.1	V
	T <sub>j</sub> =125°C		0.86		V
T <sub>RR</sub>	I <sub>F</sub> =1A, V <sub>R</sub> =30V, di <sub>F</sub> /dt=-200A/μs		21	30	ns
	T <sub>j</sub> =25°C	I <sub>F</sub> =8A		28	ns
	T <sub>j</sub> =125°C	V <sub>R</sub> =100V di <sub>F</sub> /dt=-200A/μs		42	ns

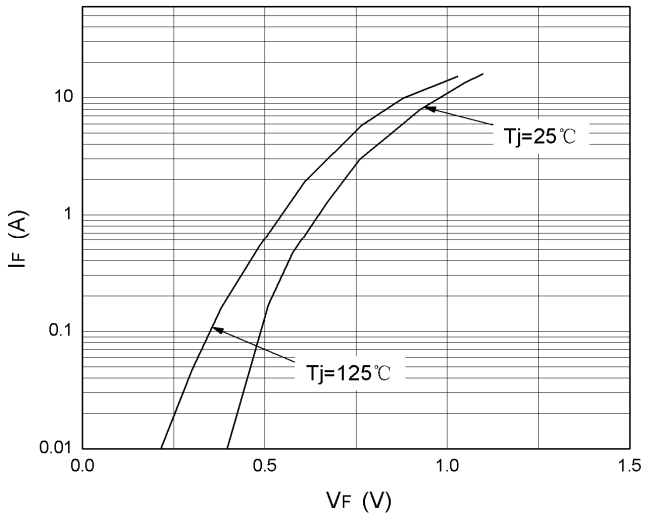
## 热特性 THERMAL CHARACTERISTICS

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 <sub>th(j-c)</sub>		3.5	°C/W
		TO-220C	4.0	
	TO-220HF			

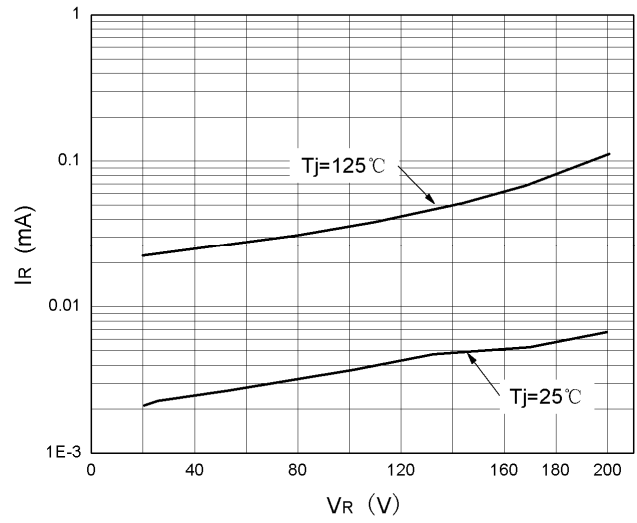




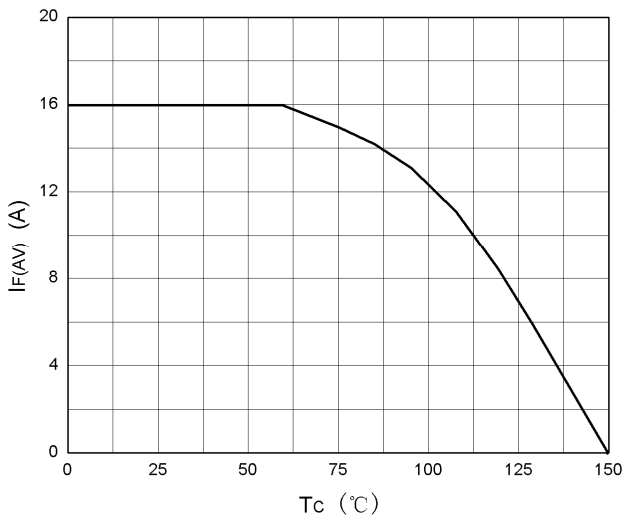
IF vs VF



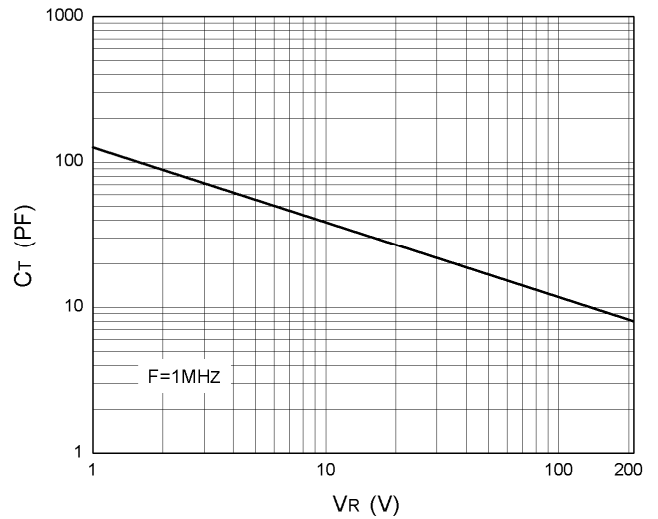
IR vs VR

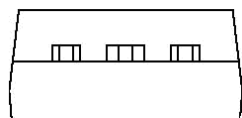
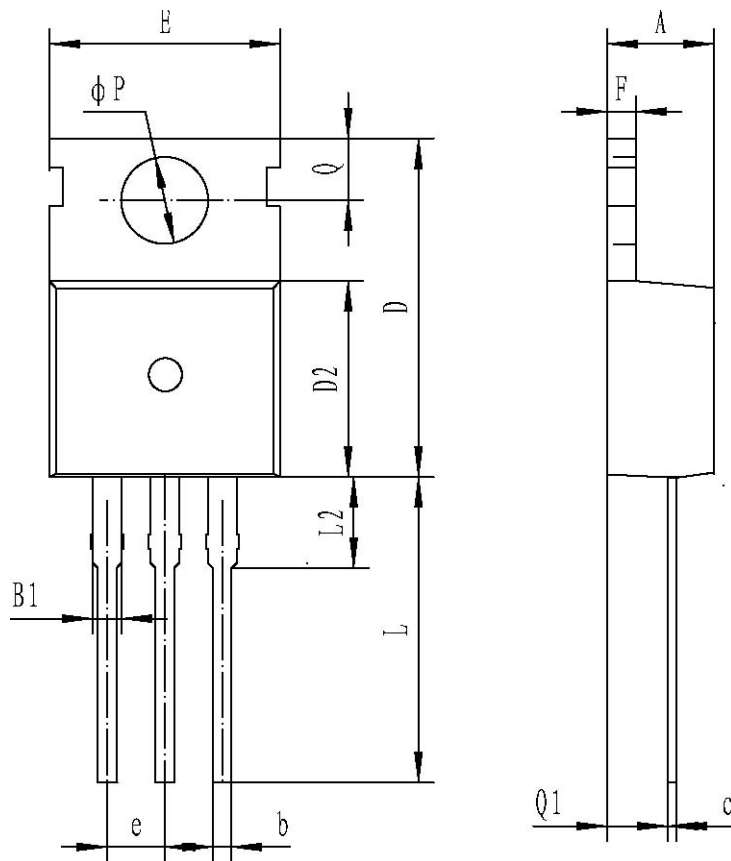


IF(AV) vs Tc



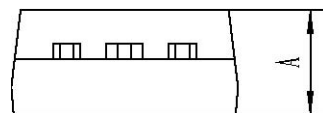
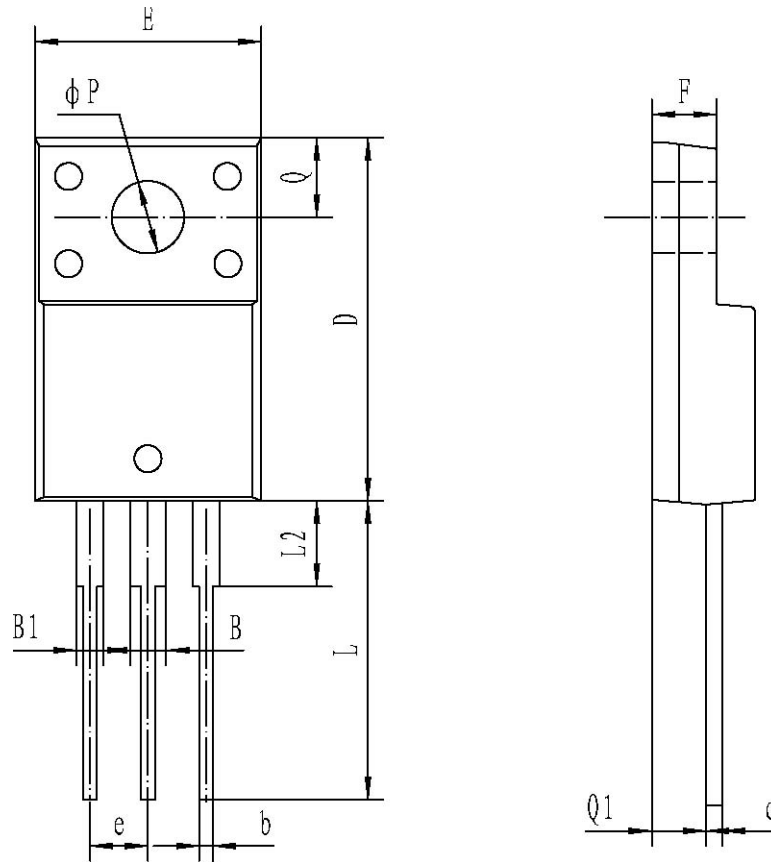
CT vs VR





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
$\Phi P$	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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- 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

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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；16F20X3 改为 16F20C3/HF3

