



# 10F40HF3-10F40C3

## 主要参数 MAIN CHARACTERISTICS

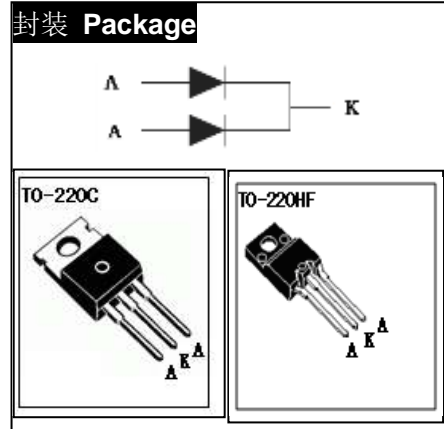
IF(AV)	5×2 A
VR	400 V
Tj(max)	150℃
VF(typ)	1.1V
trr (typ )	28ns

### 用途

- 开关电源
- 马达驱动电路

### APPLICATIONS

- Switch power supply
- Motor drives



### 产品特性

- 低功耗，高效率
- 高可靠性
- 环保（RoHS）产品

### FEATURES

- Low power loss, high efficiency
- High reliability
- RoHS product

## 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		
10F40HF3 -FA-B	10F40HF3 -FA-BR	10F40HF3	TO-220HF
10F40C3 -C-B	10F40C3 -C-BR	10F40C3	TO-220C

**绝对最大额定值 ABSOLUTE RATINGS (T<sub>C</sub>=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 <sub>RRM</sub>	400	V
正向平均整流电流 Average forward current T <sub>C</sub> =100℃	I <sub>F(AV)</sub>	10	A
整个器件 per device 单 侧 per diode		5	
峰值单脉冲浪涌电流 Peak one Cycle Surge Forward Current(Non-Repetitive) t=8.3ms	I <sub>FSM</sub>	80	A
结温 Junction Temperature	T <sub>j</sub>	-50~+150	℃
储存温度 Storage temperature range	T <sub>STG</sub>	-50~+150	℃

**电特性 ELECTRICAL CHARACTERISTICS (T<sub>C</sub>=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 <sub>R</sub>	I <sub>R</sub> =50μA	400			V
I <sub>R</sub>	T <sub>j</sub> =25℃			20	μA
	T <sub>j</sub> =125℃			200	μA
V <sub>F</sub>	T <sub>j</sub> =25℃		1.1	1.45	V
	T <sub>j</sub> =125℃			1.30	V
T <sub>rr</sub>	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>RR</sub> =0.25A		28	45	ns
T <sub>rr</sub>	I <sub>F</sub> =5A, V <sub>R</sub> =280V, di <sub>F</sub> /dt=-400A/μs		36		ns
I <sub>RM</sub>			6.6		A

**热特性 THERMAL CHARACTERISTICS**

项 目 Parameter	符 号 Symbol	最大值 Value(max)	单 位 Unit	
结到管壳的热阻 Thermal resistance from junction to case	TO-220HF total device	R <sub>th(j-c)</sub>	3.5	℃/W
结到管壳的热阻 Thermal resistance from junction to case	TO-220C total device	R <sub>th(j-c)</sub>	2.0	℃/W



### 特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 TYPICAL FORWARD CHARACTERISTICS

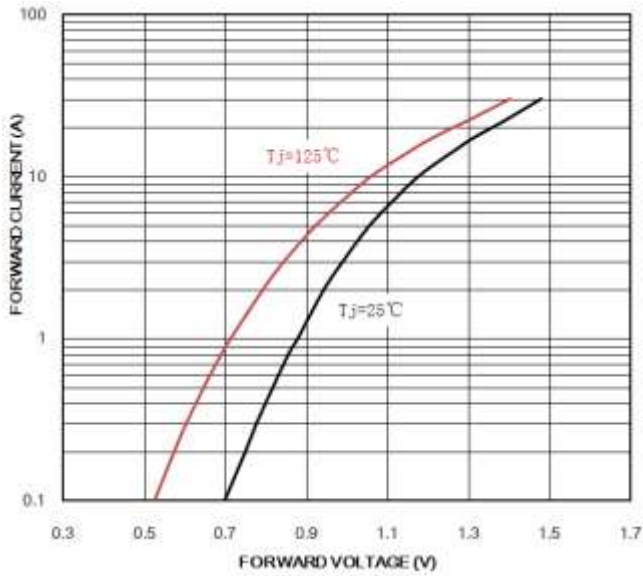


Fig.2 TYPICAL REVERSE CHARACTERISTICS

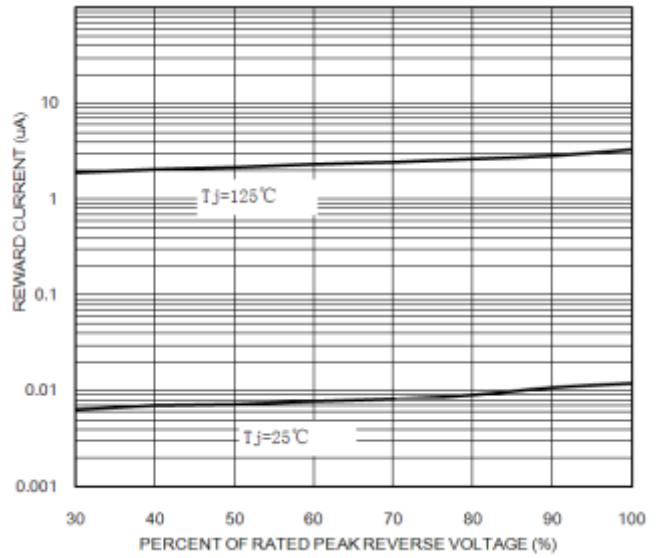


Fig.3 FORWARD CURRENT DERATING CURVE

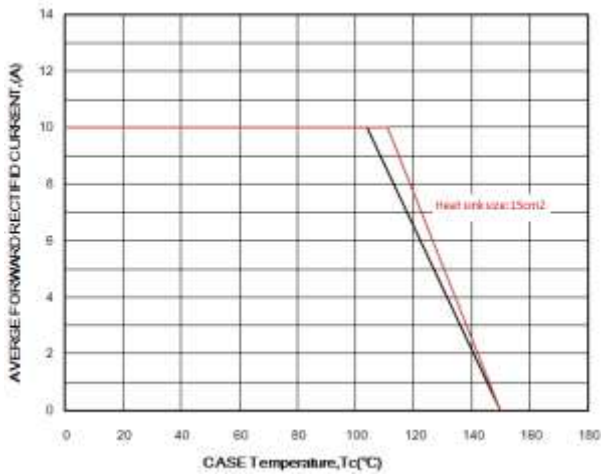
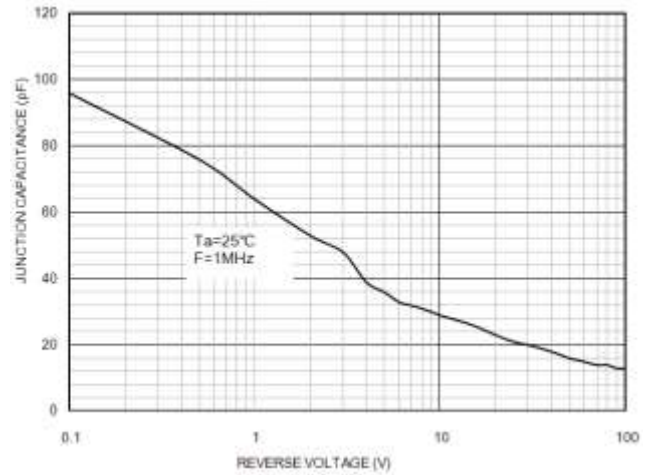


Fig.4 TYPICAL JUNCTION CAPACITANCE (Per diode)

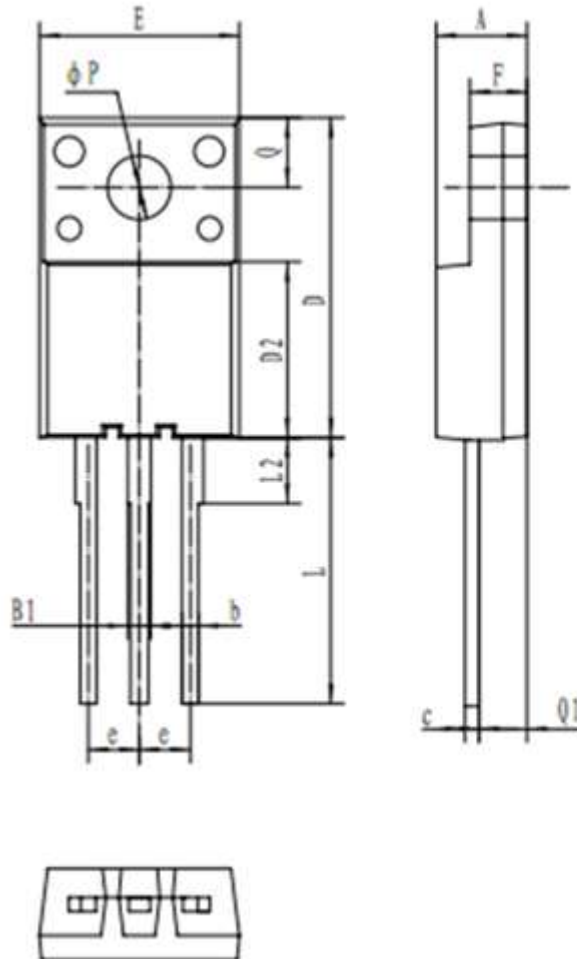




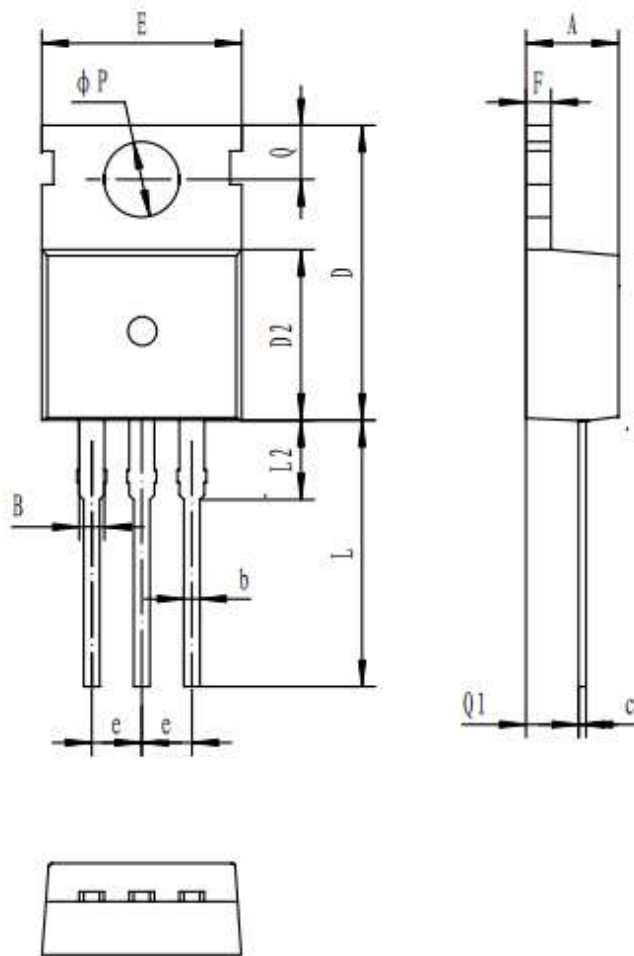
# 10F40C3/10F40HF3

外形尺寸 PACKAGE MECHANICAL DATA  
TO-220HF

单位 Unit : mm



符号 symbol	MIN	MAX
A	4.0	5.0
B1	0.87	1.27
b	0.72	0.92
c	0.5	0.7
D	15.0	16.5
D2	7.8	9.4
E	9.62	10.62
e	2.54 TYP	
F	2.3	3.3
L	13.0	14.0
L2	3.1	3.5
$\phi p$	3.0	3.4
Q	3.15	3.55
Q1	2.2	2.5



符号 symbol	MIN	MAX
A	4.30	4.70
B	1.10	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	2.39	2.69
F	1.25	1.40
L	12.60	13.60
L2	2.80	3.20
Q	2.60	3.00
Q1	2.20	2.60
P	3.50	3.80



**注意事项**

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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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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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