



10F40HF3-10F40C3

主要参数 MAIN CHARACTERISTICS

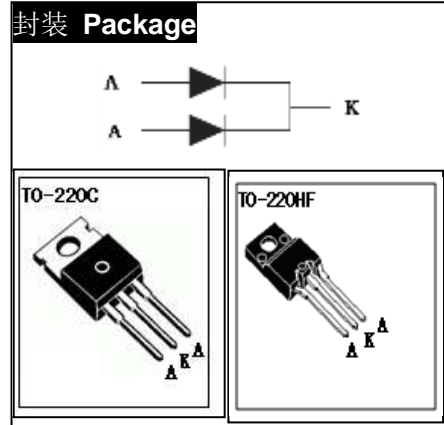
IF(AV)	5×2 A
VR	400 V
Tj(max)	150℃
VF(typ)	1.1V
trr (typ)	28ns

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



10F40C3/10F40HF3

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
最大反向重复峰值电压 Repetitive peak reverse voltage	V_{RRM}	400	V
正向平均整流电流 $T_C=100^\circ\text{C}$	$I_{F(AV)}$	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) $t=8.3\text{ms}$	I_{FSM}	80	A
结温 Junction Temperature	T_j	-50~+150	$^\circ\text{C}$
储存温度 Storage temperature range	T_{STG}	-50~+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	$I_R=50\mu\text{A}$	400			V
I_R	$T_j=25^\circ\text{C}$			20	μA
	$T_j=125^\circ\text{C}$			$V_R=V_{RRM}$	200
V_F	$T_j=25^\circ\text{C}$		1.1	1.45	V
	$T_j=125^\circ\text{C}$			$I_F=5\text{A}$	1.30
T_{rr}	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{RR}=0.25\text{A}$		28	45	ns
T_{rr}	$I_F=5\text{A}, V_R=280\text{V}, di_F/dt=-400\text{A}/\mu\text{s}$		36		ns
I_{RM}			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	$R_{th(j-c)}$	3.5	$^\circ\text{C}/\text{W}$
结到管壳的热阻 Thermal resistance from junction to case	TO-220C total device	$R_{th(j-c)}$	2.0	$^\circ\text{C}/\text{W}$



特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 TYPICAL FORWARD CHARACTERISTICS

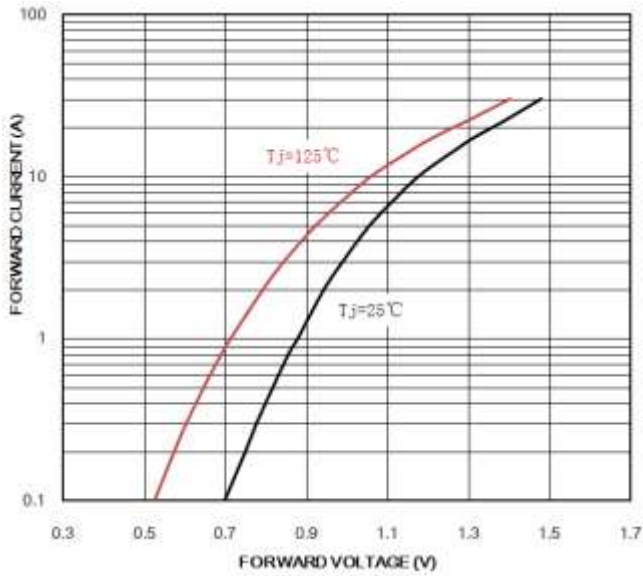


Fig.2 TYPICAL REVERSE CHARACTERISTICS

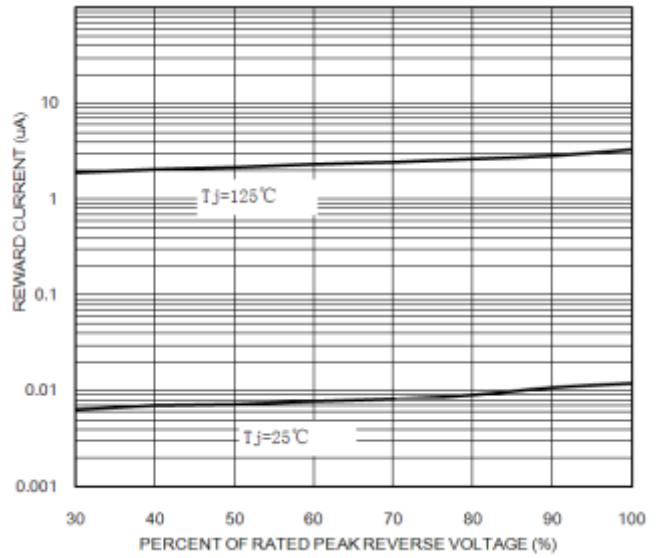


Fig.3 FORWARD CURRENT DERATING CURVE

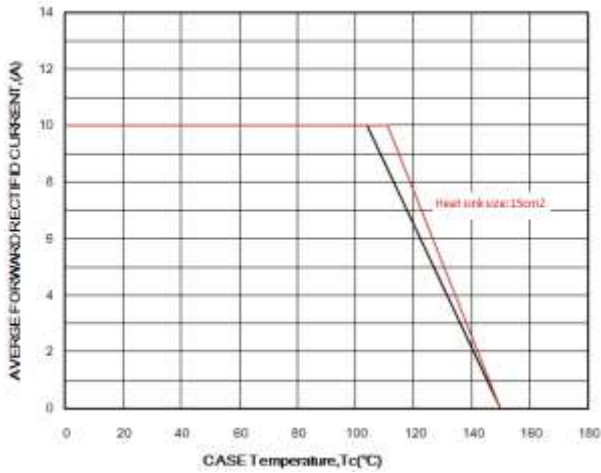
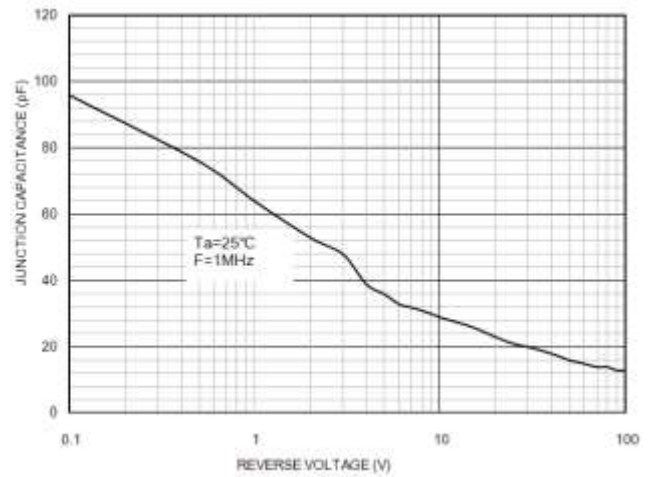


Fig.4 TYPICAL JUNCTION CAPACITANCE (Per diode)

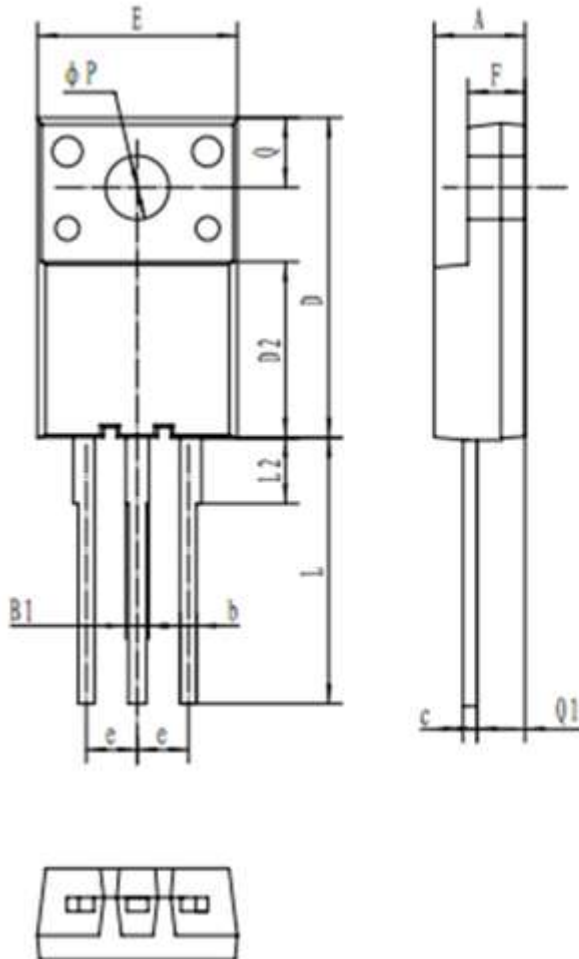




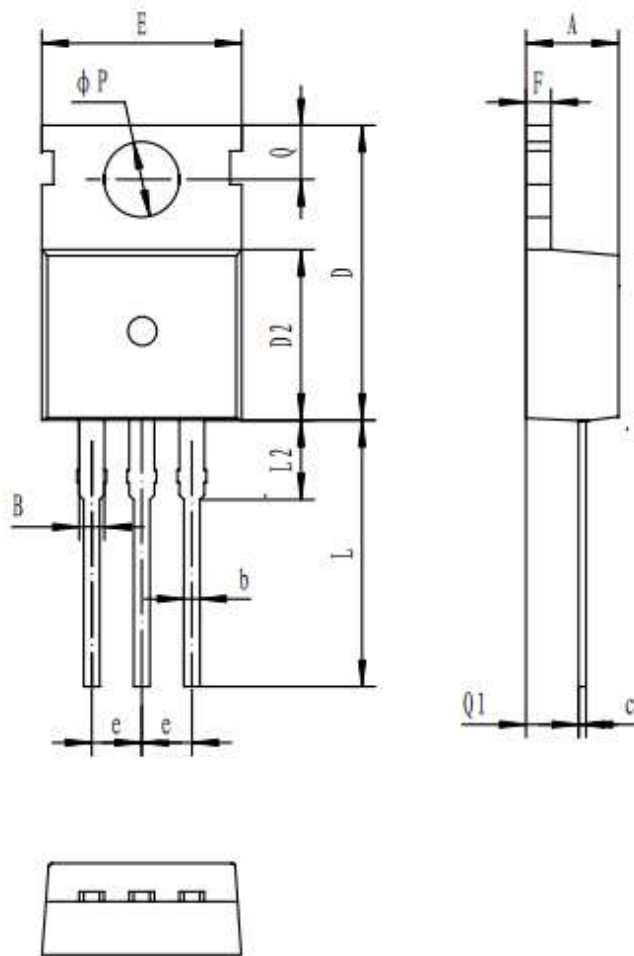
10F40C3/10F40HF3

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
ϕp	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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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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