

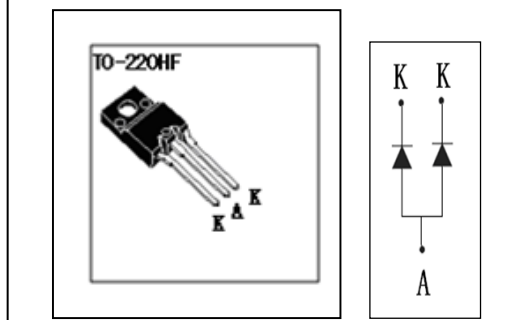


# 10F60SHF3S

## 主要参数 MAIN CHARACTERISTICS

|                |                     |
|----------------|---------------------|
| $I_F(AV)$      | $5 \times 2 A$ (共阳) |
| $V_{RRM}$      | 600 V               |
| $T_j(max)$     | $150^{\circ}C$      |
| $V_F(typ)$     | 1.3V                |
| $t_{rr} (typ)$ | 32ns                |

## 封装 Package



## 用途

- 开关电源
- 通用电路

## APPLICATIONS

- Switch power supply
- General circuits

## 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<br>Order codes | 印记<br>Marking | 封装<br>Package | 包装<br>Packaging | 器件重量<br>Device Weight |
|---------------------|---------------|---------------|-----------------|-----------------------|
| 10F60SHF3S          | 10F60SHF3S    | TO-220HF(共阳)  | 条管 Tube         | 1.85 g(typ)           |



**绝对最大额定值 ABSOLUTE RATINGS ( $T_c=25^{\circ}\text{C}$ )**

| 项 目<br>Parameter                                                                  |                                         |                                        | 符 号<br>Symbol | 数 值<br>Value  | 单 位<br>Unit        |
|-----------------------------------------------------------------------------------|-----------------------------------------|----------------------------------------|---------------|---------------|--------------------|
| 最大反向重复峰值电压<br>Repetitive peak reverse voltage                                     |                                         |                                        | $V_{RRM}$     | 600           | V                  |
| 正向平均整流电流<br>Average forward current                                               | $T_c=100^{\circ}\text{C}$<br>(TO-220HF) | 整个器件<br>per device<br>单 侧<br>per diode | $I_{F(AV)}$   | 10<br>5       | A                  |
| 峰值单脉冲浪涌电流<br>Peak one Cycle Surge Forward Current(Non-Repetitive) $t=10\text{ms}$ |                                         |                                        | $I_{FSM}$     | 70            | A                  |
| 结温<br>Junction Temperature                                                        |                                         |                                        | $T_j$         | $-50\sim+150$ | $^{\circ}\text{C}$ |
| 储存温度<br>Storage temperature range                                                 |                                         |                                        | $T_{STG}$     | $-50\sim+150$ | $^{\circ}\text{C}$ |

**电特性 ELECTRICAL CHARACTERISTICS ( $T_c=25^{\circ}\text{C}$  unless otherwise specified)**

| 项 目<br>Parameter | 测试条件<br>Tests conditions                                              |                                  | 最小值<br>Value(min) | 典型值<br>Value(typ) | 最大值<br>Value(max) | 单位<br>Unit |
|------------------|-----------------------------------------------------------------------|----------------------------------|-------------------|-------------------|-------------------|------------|
| V <sub>RRM</sub> | I <sub>R</sub> =50μA                                                  |                                  | 600               |                   |                   | V          |
| I <sub>R</sub>   | T <sub>j</sub> =25℃                                                   | V <sub>R</sub> =V <sub>RRM</sub> |                   |                   | 50                | μA         |
|                  | T <sub>j</sub> =125℃                                                  |                                  |                   | 200               | μA                |            |
| V <sub>F</sub>   | T <sub>j</sub> =25℃                                                   | I <sub>F</sub> =5A               |                   | 1.3               | 1.8               | V          |
|                  | T <sub>j</sub> =125℃                                                  |                                  |                   | 1.6               | V                 |            |
| trr              | I <sub>F</sub> =1A, V <sub>R</sub> =30V, di <sub>F</sub> /dt=-200A/μs |                                  |                   | 30                | 45                | ns         |

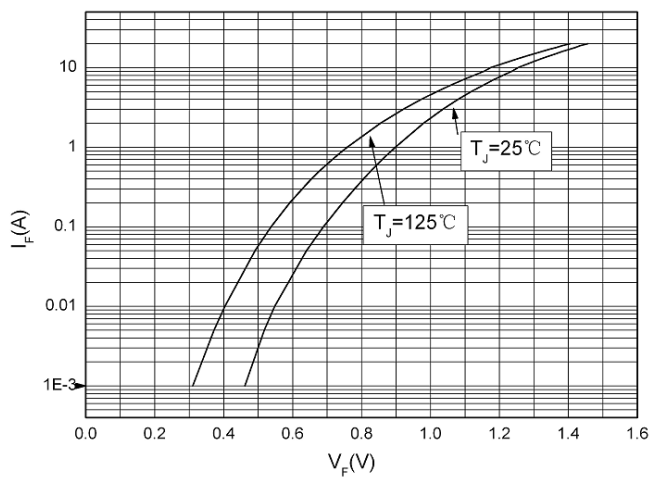
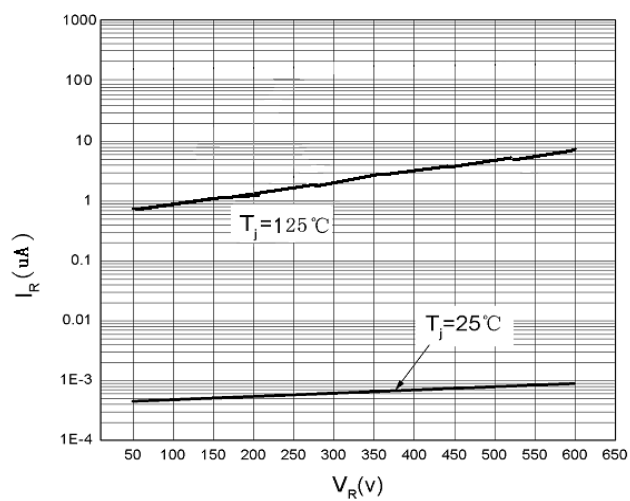
**热特性 THERMAL CHARACTERISTICS**

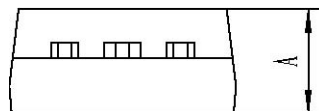
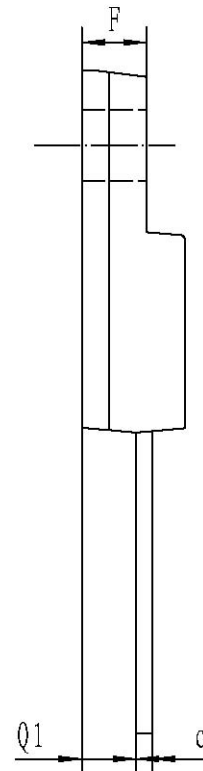
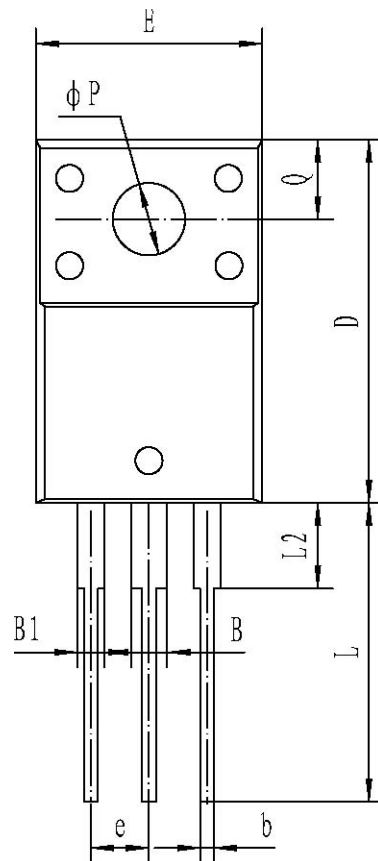
| 项 目<br>Parameter                                    |          | 符 号<br>Symbol | 最小值<br>Value(min) | 最大值<br>Value(max) | 单 位<br>Unit                 |
|-----------------------------------------------------|----------|---------------|-------------------|-------------------|-----------------------------|
| 结到管壳的热阻<br>Thermal resistance from junction to case | TO-220HF | $R_{th(j-c)}$ |                   | 4.0               | $^{\circ}\text{C}/\text{W}$ |





## 特征曲线 ELECTRICAL CHARACTERISTICS (curves)

 $I_F$  vs  $V_F$  $I_R$  vs  $V_R$ 



| 符 号<br>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   |
| $\Phi P$      | 3.3        | 3.7   |
| Q             | 2.5        | 2.9   |
| Q1            | 2.5        | 2.9   |



**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

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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 |
|------------|---------------|--------------|-----------------------------|
| 2015-10-12 |               |              |                             |

