



# 10F60HF/10F60C

## 主要参数 MAIN CHARACTERISTICS

|               |       |
|---------------|-------|
| $I_F(AV)$     | 10A   |
| $V_{RRM}$     | 600 V |
| $T_j(max)$    | 175°C |
| $V_F(typ)$    | 1.20V |
| $t_{rr}(typ)$ | 35ns  |

## 用途

- 有源功率校正电路
- 开关电源

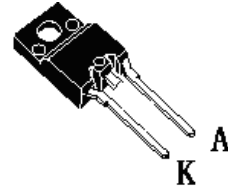
## APPLICATIONS

- Active power factor correction
- Switch power supply

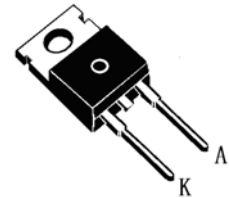
## 封装 Package



### TO-220HF2L



### TO-220C2L



## 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 |
|---------------------|----------------|----------------|------------------|-----------------------|
| 10F60HF             | 10F60HF        | TO-220HF2L     | 条管 Tube          | 1.70 g(typ)           |
| 10F60C              | 10F60C         | TO-220C2L      | 条管 Tube          | 2.15 g(typ)           |



**绝对最大额定值 ABSOLUTE RATINGS (Tc=25°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                                      | $I_{F(AV)}$   | 10           | A           |
| 峰值单脉冲浪涌电流<br>Peak one Cycle Surge Forward Current(Non-Repetitive) t=10ms | $I_{FSM}$     | 150          | A           |
| 结温<br>Junction Temperature                                               | $T_j$         | -55~+150     | °C          |
| 储存温度<br>Storage temperature range                                        | $T_{STG}$     | -55~+150     | °C          |

**电特性 ELECTRICAL CHARACTERISTICS (Tc=25°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 |
|------------------|----------------------------------------------|-------------------|-------------------|-------------------|-------------|
| $V_{RRM}$        | $I_R = 50\mu A$                              | 600               |                   |                   | V           |
| $I_R$            | $T_j = 25^\circ C$                           |                   |                   | 50                | $\mu A$     |
|                  | $T_j = 125^\circ C$                          |                   |                   | 200               | $\mu A$     |
| $V_F$            | $T_j = 25^\circ C$                           |                   | 1.2               | 1.7               | V           |
|                  | $T_j = 125^\circ C$                          |                   | 1.0               | 1.5               | V           |
| trr              | $I_F = 1A, V_R = 30V, di_F/dt = -200A/\mu s$ |                   | 30                | 45                | ns          |
|                  | $T_j = 25^\circ C$                           |                   |                   | 70                | ns          |
|                  | $T_j = 125^\circ C$                          |                   |                   | 90                | ns          |

**热特性 THERMAL CHARACTERISTICS**

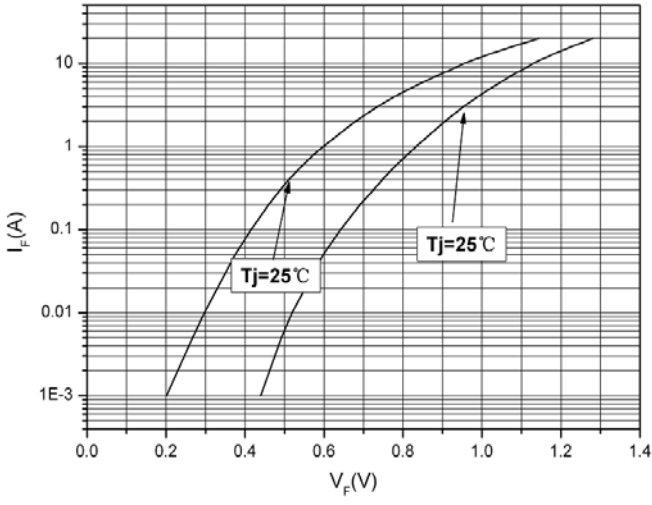
| 项 目<br>Parameter                                    | 符 号<br>Symbol | 最小值<br>Value(min) | 最大值<br>Value(max) | 单 位<br>Unit |
|-----------------------------------------------------|---------------|-------------------|-------------------|-------------|
| 结到管壳的热阻<br>Thermal resistance from junction to case | $R_{th(j-c)}$ |                   | 3.5               | °C/W        |
|                                                     | $R_{th(j-c)}$ |                   | 3.0               | °C/W        |



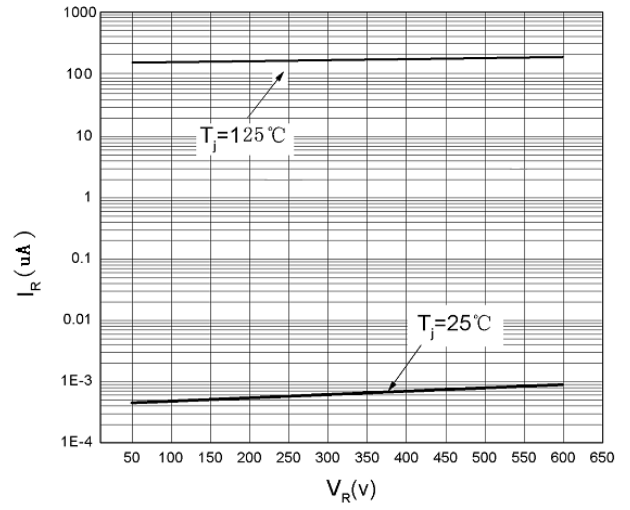


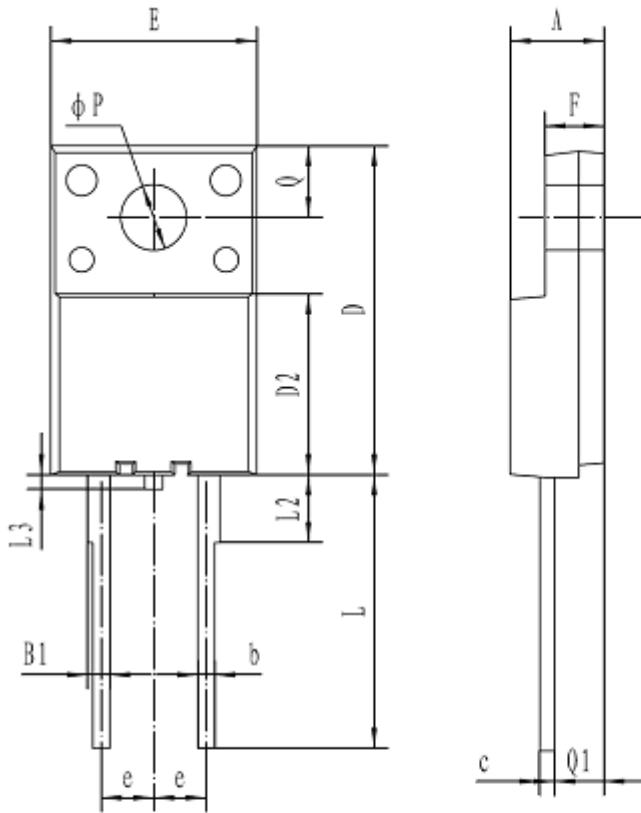
特征曲线 ELECTRICAL CHARACTERISTICS (curves)

$I_F$  vs  $V_F$

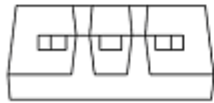


$I_R$  vs  $V_R$





| 符号<br>Symbol | Min       | Max   |
|--------------|-----------|-------|
| A            | 4.0       | 5.0   |
| B1           | 0.87      | 1.27  |
| b            | 0.72      | 0.92  |
| c            | 0.5       | 0.70  |
| 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            | 12.0      | 14.0  |
| L2           | 3.1       | 3.5   |
| $\phi P$     | 3.0       | 3.4   |
| Q            | 3.15      | 3.55  |
| Q1           | 2.2       | 2.5   |

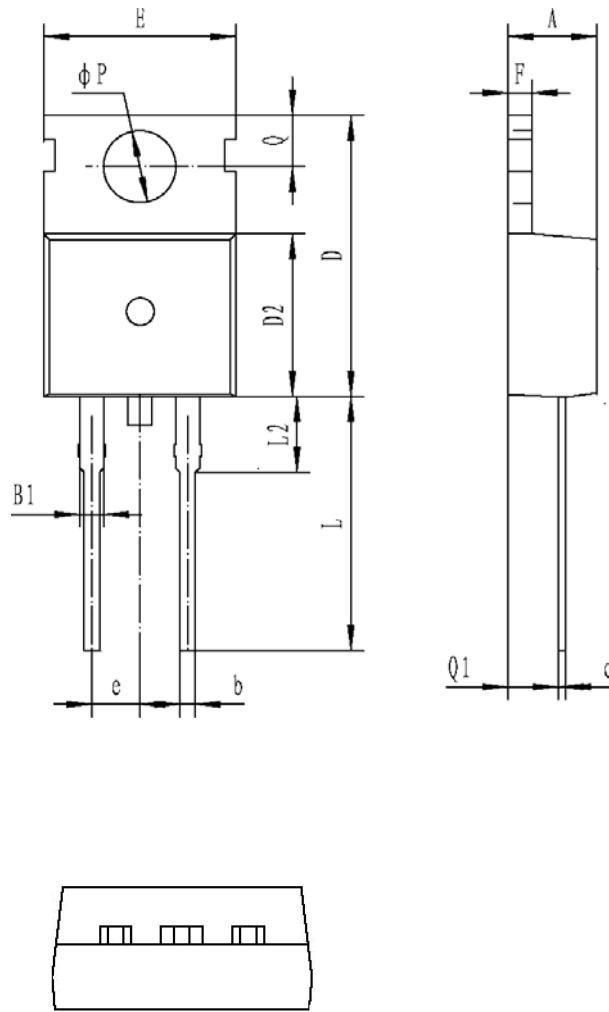




TO-220C2L

10F60HF/C

单位 Unit : mm



| 符号<br>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   |



**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.

**联系方式**

吉林华微电子股份有限公司

公司地址：吉林省吉林市深圳街 99 号

邮编：132013

总机：86-432-64678411

传真：86-432-64665812

网址：[www.hwdz.com.cn](http://www.hwdz.com.cn)**市场营销部**

地址：吉林省吉林市深圳街 99 号

邮编：132013

电话：86-432-64675588

64675688

64678411-3098/3099

传真：86-432-64671533

**CONTACT****JILIN SINO-MICROELECTRONICS CO.LTD.**

ADD: No.99 Shenzhen Street, Jilin City, Jilin Province, China.

Post Code: 132013

Tel: 86-432-64678411

Fax: 86-432-64665812

Web Site: [www.hwdz.com.cn](http://www.hwdz.com.cn)**MARKET DEPARTMENT**

ADD: No.99 Shenzhen Street, Jilin City, Jilin Province, China.

Post Code: 132013

Tel: 86-432-64675588

64675688

64678411-3098/3099

Fax: 86-432-64671533

**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 |
|---------|---------------|--------------|-----------------------------|
|         |               |              |                             |

