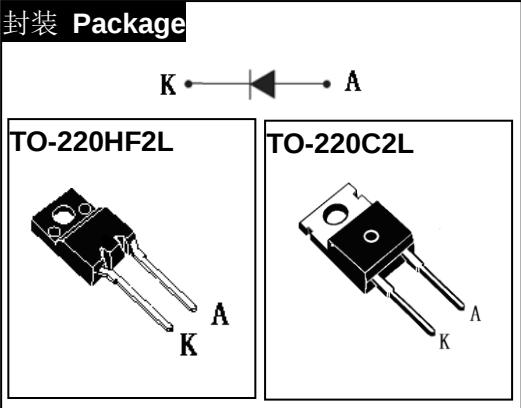




# 15F60UHF/15F60UC

主要参数 MAIN CHARACTERISTICS

|           |       |
|-----------|-------|
| IF(AV)    | 15A   |
| VRRM      | 600 V |
| VF(typ)   | 1.85V |
| Trr (typ) | 22ns  |



用途

- 吸收回路
- 开关电源
- UPS
- 高频开关器件并联二极管

APPLICATIONS

- Snubber diode
- Switch power supply
- UPS
- Antiparalle Diode for high frequency switching devices

产品特性

- 低正向压降
- 低功耗，高效率
- 高可靠性

FEATURES

- Low forward voltage drop
- Low power loss, high efficiency
- High reliability

订货信息 ORDER MESSAGE

| 订货型号 Order codes      |                            | 印 记<br>Marking | 封 装<br>Package |
|-----------------------|----------------------------|----------------|----------------|
| 有卤-条管<br>Halogen-Tube | 无卤-条管<br>Halogen Free-Tube |                |                |
| 15F60UHF-FA-B         | 15F60UHF-FA-BR             | 15F60UHF       | TO-220HF2L     |
| 15F60UC-C-B           | 15F60UC-C-BR               | 15F60UC        | TO-220C2L      |

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        |
|-------------------------------------------------------------------------|---------------|---------------|--------------------|
| 反向重复峰值电压<br>Peak Repetitive Reverse Voltage                             | $V_{RRM}$     | 600           | V                  |
| 平均正向整流电流 $T_c=100^{\circ}\text{C}$<br>Average Forward Rectified Current | $I_{F(AV)}$   | 15            | A                  |
| 非重复浪涌正向电流<br>Non-Repetitive Surge Forward Current $t=10\text{ms}$       | $I_{FSM}$     | 150           | A                  |
| 结温<br>Junction Temperature                                              | $T_j$         | $-50\sim+150$ | $^{\circ}\text{C}$ |
| 存储温度<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>R</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> | -                 | -                 | 10                | μA         |
|                  | T <sub>j</sub> =125℃                                                    |                                  | -                 | -                 | 200               | μA         |
| V <sub>F</sub>   | T <sub>j</sub> =25℃                                                     | I <sub>F</sub> =15A              | -                 | 1.85              | 2.4               | V          |
|                  | T <sub>j</sub> =125℃                                                    |                                  | -                 | 1.6               | 2.2               | V          |
| T <sub>rr</sub>  | I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>RR</sub> =0.25A      |                                  | -                 | 24                | 35                | ns         |
| T <sub>rr</sub>  | I <sub>F</sub> =1A, V <sub>R</sub> =30V, di <sub>F</sub> /dt =-200A/μs  |                                  |                   | 22                |                   | ns         |
| T <sub>rr</sub>  | I <sub>F</sub> =15A, V <sub>R</sub> =400V, di <sub>F</sub> /dt =200A/μs |                                  | -                 | 37                | -                 | ns         |
| I <sub>RM</sub>  |                                                                         |                                  | -                 | 2.4               | -                 | A          |

## 热特性 THERMAL CHARACTERISTICS (maximum) Per Diode

| 项 目<br>Parameter                               | 符 号<br>Symbol | 封 装<br>Package | 最大值<br>Value(max) | 单 位<br>Unit                 |
|------------------------------------------------|---------------|----------------|-------------------|-----------------------------|
| 结到管壳的热阻<br>Thermal Resistance Junction to Case | $R_{th(j-c)}$ | TO-220HF2L     | 4.6               | $^{\circ}\text{C}/\text{W}$ |
|                                                |               | TO-220C2L      | 1.5               |                             |





## 特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 TYPICAL FORWARD CHARACTERISTICS

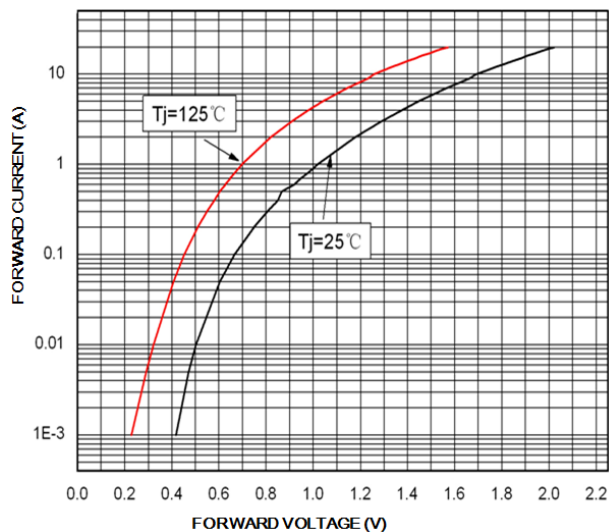


Fig.2 TYPICAL REVERSE CHARACTERISTICS

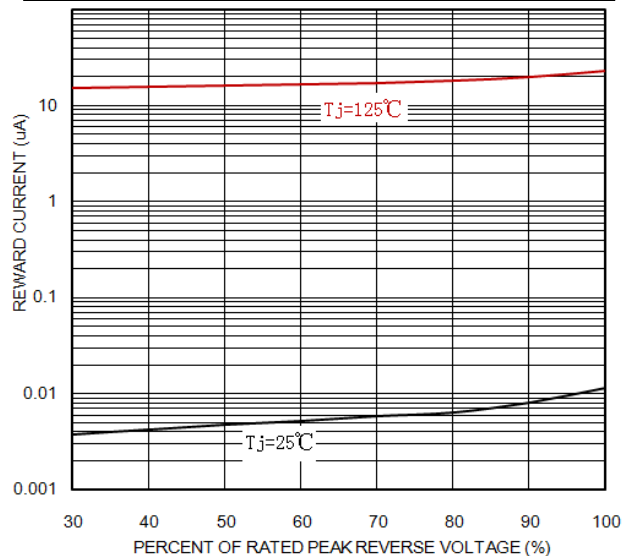


Fig.3 FORWARD CURRENT DERATING CURVE

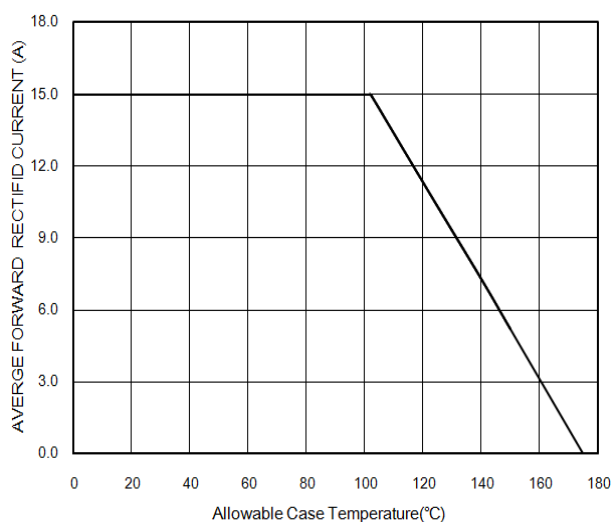


Fig.4 TYPICAL JUNCTION CAPACITANCE

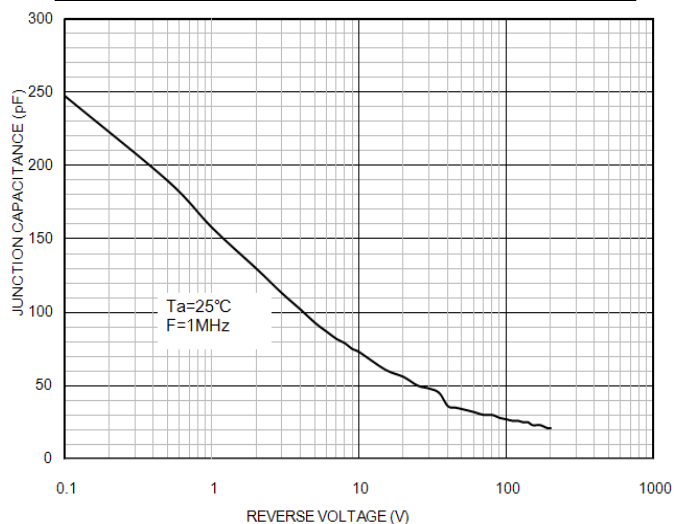


Fig.5 Reverse recovery time versus diF/dt

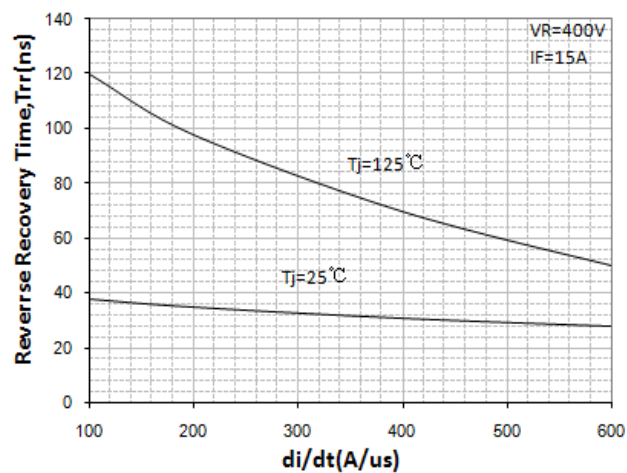
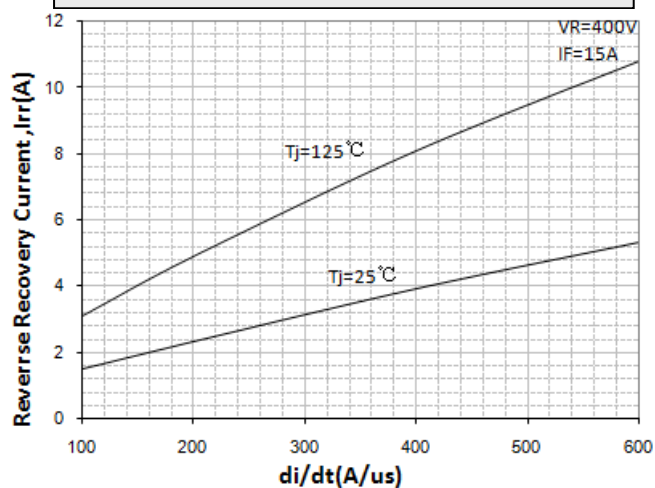


Fig.6 Peak reverse recovery current versus diF/dt

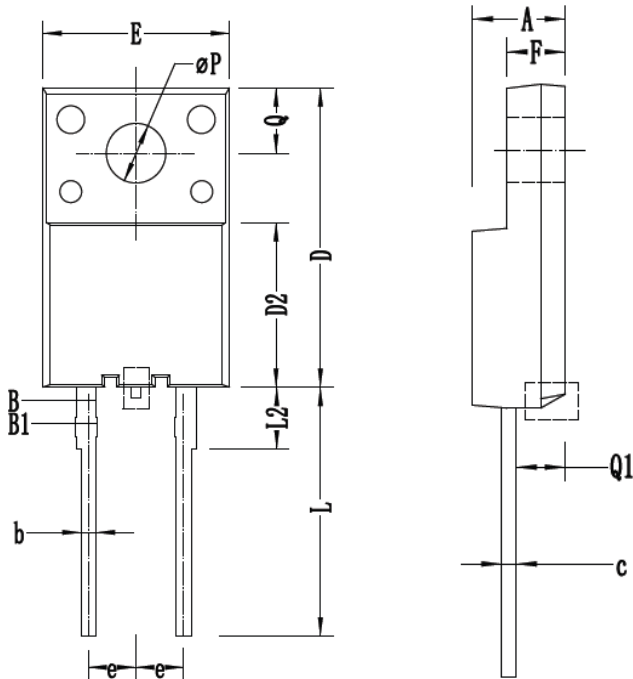




外形尺寸 PACKAGE MECHANICAL DATA

TO-220HF2L

单位 Unit : mm



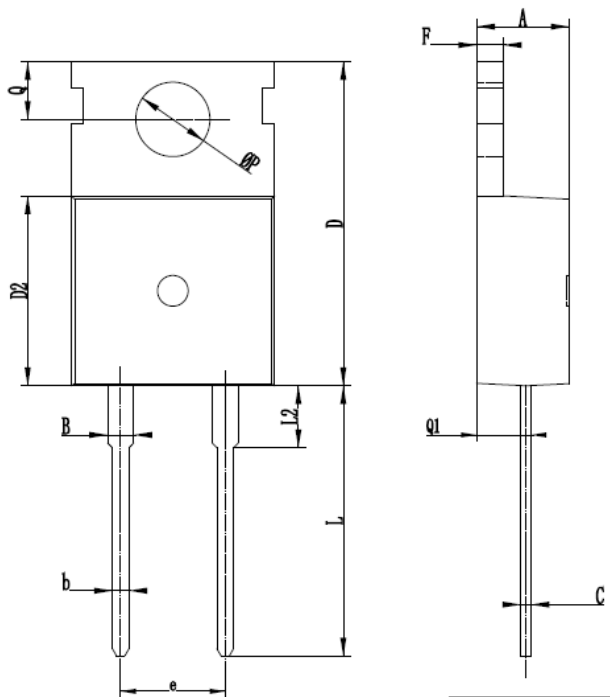
| mm     |         |       |
|--------|---------|-------|
| SYMBOL | MIN     | MAX   |
| A      | 4.00    | 5.00  |
| B1     | 0.87    | 1.27  |
| B      | 0.82    | 1.22  |
| b      | 0.72    | 0.92  |
| c      | 0.50    | 0.70  |
| D      | 15.00   | 16.50 |
| D2     | 7.80    | 9.40  |
| E      | 9.62    | 10.62 |
| e      | 2.54TYP |       |
| F      | 2.30    | 3.30  |
| L      | 12.00   | 14.00 |
| L2     | 3.10    | 3.50  |
| ΦP     | 3.00    | 3.40  |
| Q      | 3.15    | 3.55  |
| Q1     | 2.20    | 2.50  |

注:

1. 虚框区域表示: 塑封体下方有、无余留, 塑封体背面有、无台阶, 均为我司受控外形;

TO-220C2L

单位 Unit : mm



| 符号<br>symbol | 单位: mm |       |
|--------------|--------|-------|
|              | MIN    | MAX   |
| A            | 4.30   | 4.70  |
| B            | 1.22   | 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            | 4.78   | 5.38  |
| 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  |





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