

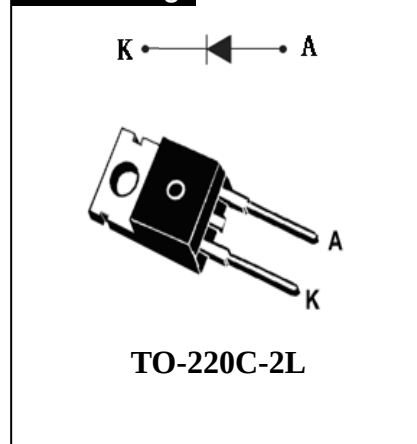


# FP15U130BA

## 主要参数 MAIN CHARACTERISTICS

|           |       |
|-----------|-------|
| IF(AV)    | 15A   |
| VRRM      | 1300V |
| VF(typ)   | 2.6V  |
| Trr (typ) | 33ns  |

## 封装 Package



## 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

- 低功耗, 高效率
- 高可靠性
- 低正向压降

## FEATURES

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

## 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 |                |                |
| FP15U130BA-CL-B       | FP15U130BA -CL-BR          | FP15U130BA     | TO-220C-2L     |



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                                 | $V_{RRM}$     | 1300          | V                  |
| 平均正向整流电流 ( $T_c=125^{\circ}\text{C}$ )<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 $t=10.0\text{ms}$         | $I_{FSM}$     | 200           | A                  |
| 结温 Junction Temperature                                                     | $T_j$         | $-55\sim+175$ | $^{\circ}\text{C}$ |
| 存储温度 Storage Temperature Range                                              | $T_{STG}$     | $-55\sim+150$ | $^{\circ}\text{C}$ |

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> =100μA                                                                          |                       | 1300              | -                 | -                 | V          |
| I <sub>R</sub>   | T <sub>j</sub> =25℃                                                                            | V <sub>R</sub> =1300V | -                 | -                 | 30                | μA         |
|                  | T <sub>j</sub> =150℃                                                                           |                       | -                 | -                 | 200               | μA         |
| V <sub>F</sub>   | T <sub>j</sub> =25℃                                                                            | I <sub>F</sub> =15A   | -                 | 2.6               | 3.2               | V          |
|                  | T <sub>j</sub> =150℃                                                                           |                       | -                 | 1.9               | 2.5               | V          |
| T <sub>rr</sub>  | I <sub>F</sub> =0.5A I <sub>R</sub> =1.0A I <sub>RR</sub> =0.25A                               |                       | -                 | 33                | 50                | ns         |
| T <sub>rr</sub>  | I <sub>F</sub> =1A V <sub>R</sub> =30V di <sub>F</sub> /dt =-200A/μs                           |                       | -                 | 25                | 45                | ns         |
| T <sub>rr</sub>  | I <sub>F</sub> =15A V <sub>R</sub> =600V di <sub>F</sub> /dt =-200A/μs<br>T <sub>j</sub> =25℃  |                       |                   | 255               |                   | ns         |
| Q <sub>rr</sub>  |                                                                                                |                       |                   | 450               |                   | nc         |
| I <sub>RRM</sub> |                                                                                                |                       |                   | 3.5               |                   | A          |
| T <sub>rr</sub>  | I <sub>F</sub> =15A V <sub>R</sub> =600V di <sub>F</sub> /dt =-200A/μs<br>T <sub>j</sub> =150℃ |                       | -                 | 470               | -                 | ns         |
| Q <sub>rr</sub>  |                                                                                                |                       | -                 | 1110              | -                 | nc         |
| I <sub>RRM</sub> |                                                                                                |                       | -                 | 6.3               | -                 | A          |

## 热特性 THERMAL CHARACTERISTICS (maximum)

| 项 目<br>Parameter                               | 符 号<br>Symbol | 最大值<br>Value(max) | 单 位<br>Unit                 |
|------------------------------------------------|---------------|-------------------|-----------------------------|
| 结到管壳的热阻<br>Thermal Resistance Junction to Case | $R_{th(j-c)}$ | 1.4               | $^{\circ}\text{C}/\text{W}$ |





## 特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 Typical Forward Characteristics

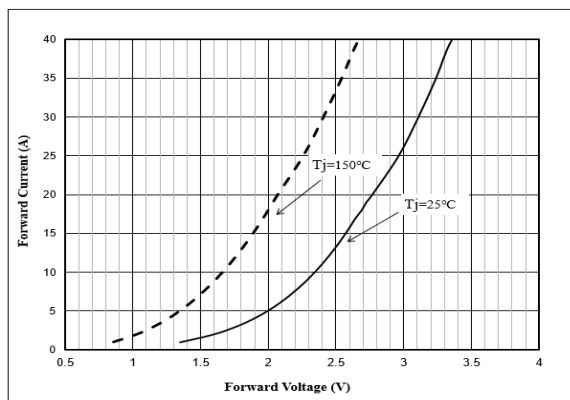


Fig.2 Typical Reverse Characteristics

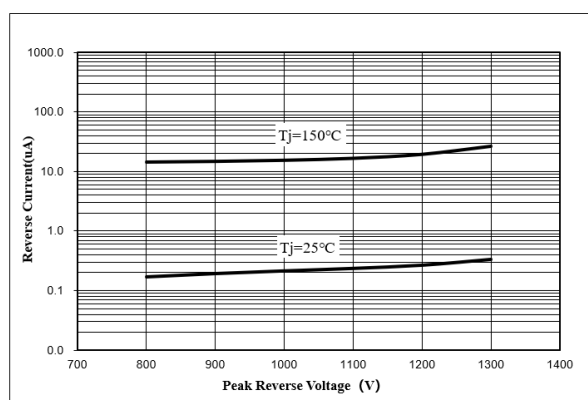
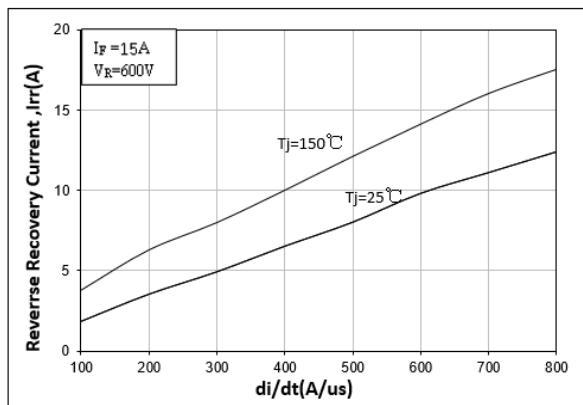
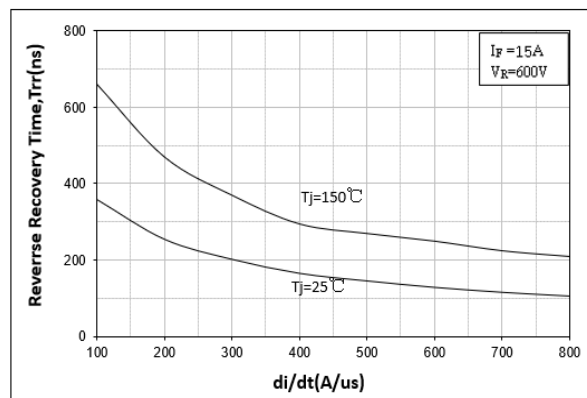
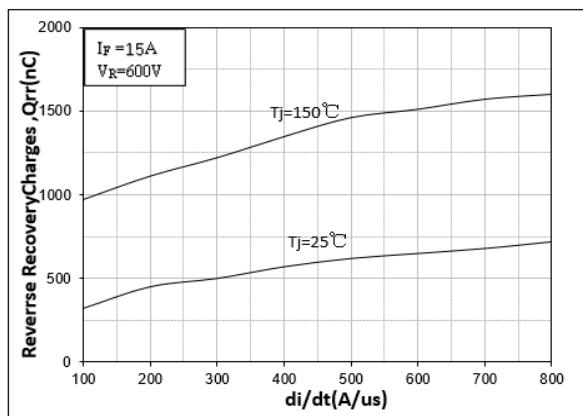
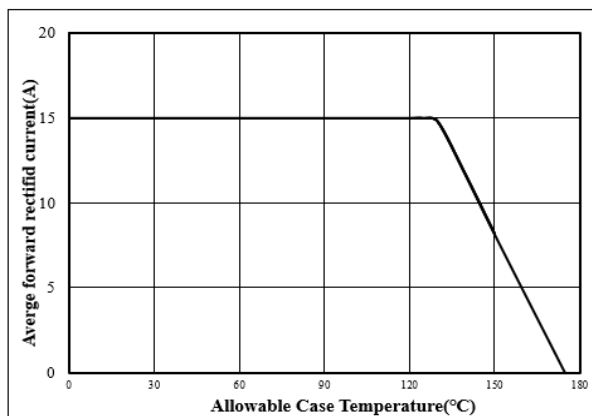
Fig.3 Reverse Recovery Current vs  $dI_F/dt$ Fig.4 Reverse Recovery Time vs  $dI_F/dt$ Fig.5 Reverse Recovery Charge vs  $dI_F/dt$ 

Fig.6 Forward Current vs Case Temperature

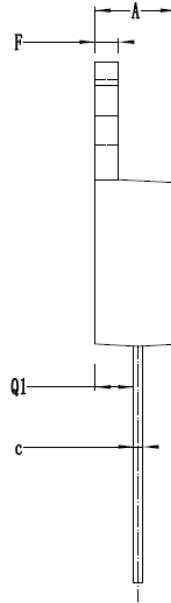
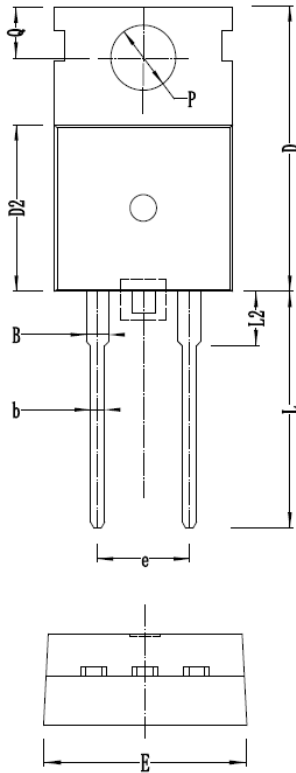




## 外形尺寸 PACKAGE MECHANICAL DATA

TO-220C-2L

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  |
| ΦP           | 3.50   | 3.80  |
| Q            | 2.60   | 3.00  |
| Q1           | 2.20   | 2.60  |

注:

1. 虚线区域代表, 此位置有、无余留, 均为我司受控外形;





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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.
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