



# FP8K60AA

主要参数 MAIN CHARACTERISTICS

|               |       |
|---------------|-------|
| IF(AV)        | 8A    |
| VRRM          | 600 V |
| VF(typ) 150°C | 1.6V  |
| Trr(typ)      | 15ns  |

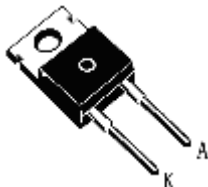
封装 Package



TO-220MF2L-K1



TO-220C-2L



用途

- 有源功率校正电路
- 开关电源
- PFC

APPLICATIONS

- Active power factor correction
- Switch power supply
- PFC

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<br>Marking | 封 装<br>Package |
|-----------------------|----------------------------|----------------|----------------|
| 有卤-条管<br>Halogen-Tube | 无卤-条管<br>Halogen Free-Tube |                |                |
| FP8K60AA-FK-B         | FP8K60AA-FK-BR             | FP8K60AA       | TO-220MF2L-K1  |
| FP8K60AA-CL-B         | FP8K60AA-CL-BR             | FP8K60AA       | TO-220C-2L     |





## 绝对最大额定值 ABSOLUTE RATINGS (Tc=25℃)

| 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 <sub>RRM</sub>   | 600          | V           |
| 平均正向整流电流 T <sub>C</sub> =110℃<br>Average Forward Rectified Current | I <sub>F(AV)</sub> | 8            | A           |
| 非重复浪涌正向电流<br>Non-Repetitive Surge Forward Current t=10ms           | I <sub>FSM</sub>   | 70           | A           |
| 结温<br>Junction Temperature                                         | T <sub>j</sub>     | 175          | ℃           |
| 储存温度<br>Storage temperature range                                  | T <sub>STG</sub>   | -65~+175     | ℃           |

## 电特性 ELECTRICAL CHARACTERISTICS (Tc=25℃ 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> | -                 | 0.012             | 1                 | μA         |
|                  | T <sub>j</sub> =150℃                                                                           |                                  | -                 | 5.5               | 100               | μA         |
| V <sub>F</sub>   | T <sub>j</sub> =25℃                                                                            | I <sub>F</sub> =8A               | -                 | 2.6               | 3.2               | V          |
|                  | T <sub>j</sub> =150℃                                                                           |                                  | -                 | 1.6               | 1.9               | V          |
| C <sub>j</sub>   | V <sub>R</sub> = 200V F=1MHz                                                                   |                                  | -                 | 15                | -                 | pF         |
| trr              | I <sub>F</sub> =0.5A, I <sub>R</sub> =1A, I <sub>RR</sub> =0.25A                               |                                  | -                 | 15                | 22                | ns         |
| trr              | I <sub>F</sub> =1A, V <sub>R</sub> =30V, di <sub>F</sub> /dt=-100A/μs                          |                                  | -                 | 15                | 20                | ns         |
| trr              | I <sub>F</sub> =8A, V <sub>R</sub> =200V, di <sub>F</sub> /dt=-200A/μs<br>T <sub>C</sub> =25℃  |                                  | -                 | 18                | -                 | ns         |
| Q <sub>rr</sub>  |                                                                                                |                                  | -                 | 18                | -                 | nc         |
| I <sub>RRM</sub> |                                                                                                |                                  | -                 | 1.5               | -                 | A          |
| trr              | I <sub>F</sub> =8A, V <sub>R</sub> =200V, di <sub>F</sub> /dt=-200A/μs<br>T <sub>C</sub> =125℃ |                                  | -                 | 38                | -                 | ns         |
| Q <sub>rr</sub>  |                                                                                                |                                  | -                 | 95                | -                 | nc         |
| I <sub>RRM</sub> |                                                                                                |                                  | -                 | 4.5               | -                 | A          |





## 热特性 THERMAL CHARACTERISTICS

| 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-220MF2L-K1  | 3.5               | $^{\circ}\text{C}/\text{W}$ |
|                                                |               | TO-220C-2L     | 2.2               |                             |

## 特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 TYPICAL FORWARD CHARACTERISTICS

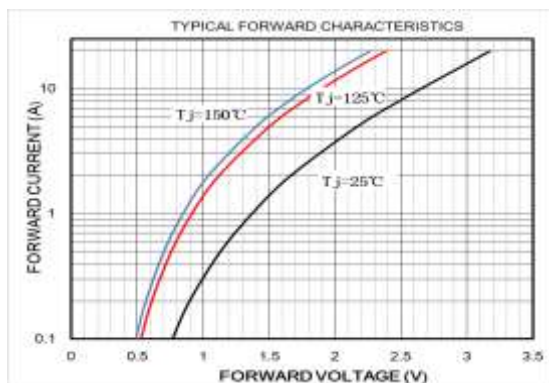


Fig.2 TYPICAL REVERSE CHARACTERISTICS

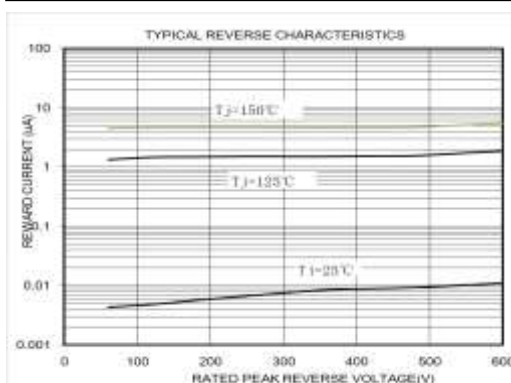


Fig.3 TYPICAL JUNCTION CAPACITANCE

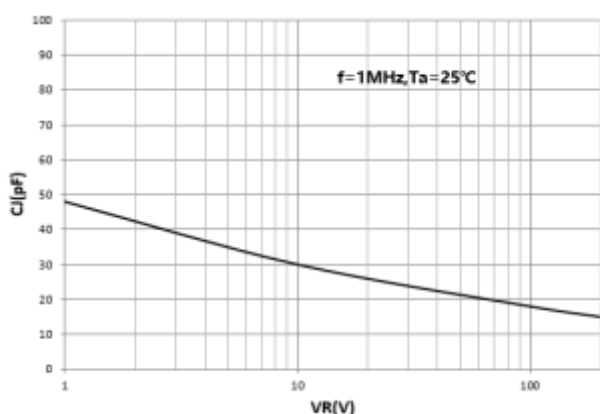


Fig.4 Reverse recovery time versus diF/dt

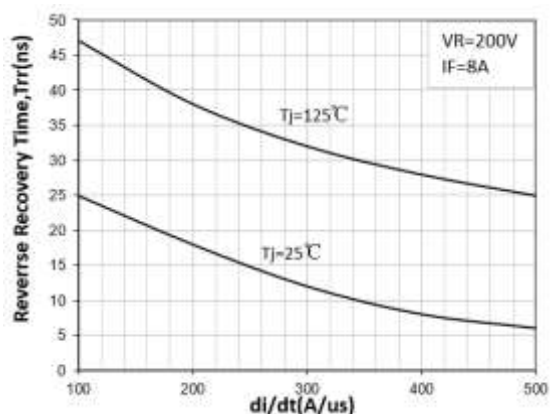


Fig.5 Reverse recovery charges versus diF/dt

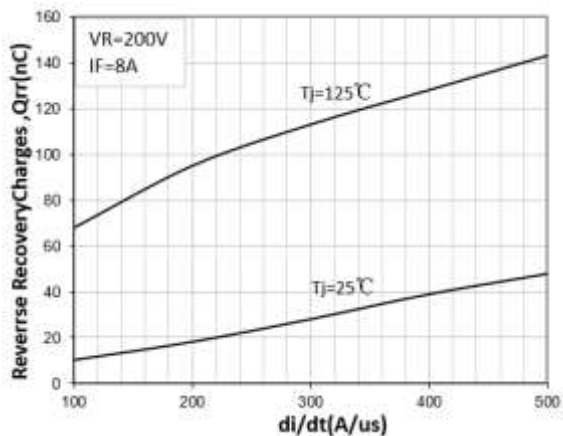
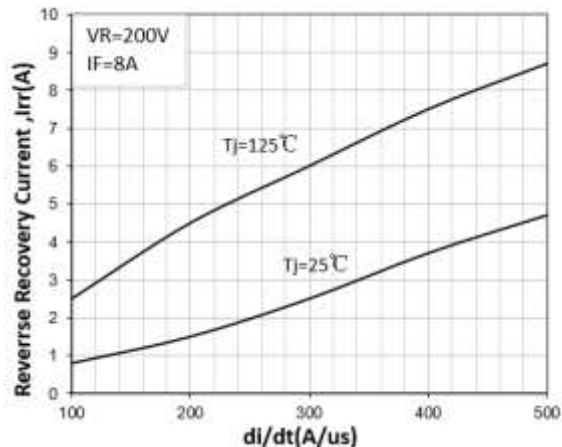


Fig.6 Peak reverse recovery current versus diF/dt



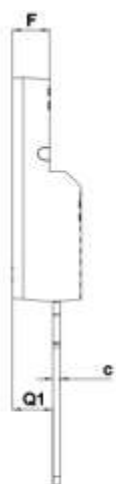
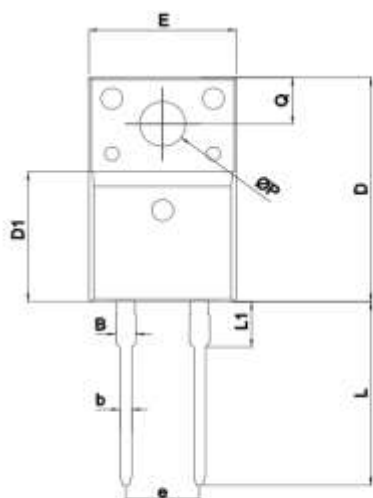


FP8K60AA

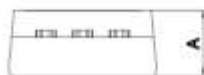
外形尺寸 PACKAGE MECHANICAL DATA

TO-220MF2L-K1

单位 Unit : mm

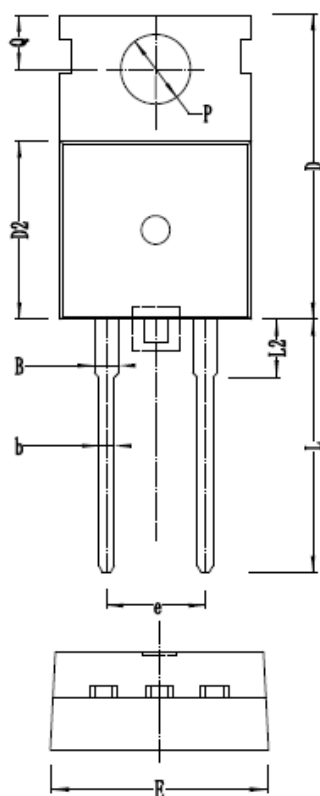


| SYMBOL | mm       |      |
|--------|----------|------|
|        | MIN      | MAX  |
| A      | 4.5      | 4.9  |
| B      | 1.22     | 1.47 |
| b      | 0.7      | 0.9  |
| c      | 0.45     | 0.60 |
| D      | 15.6     | 16.1 |
| D1     | 9.0      | 9.3  |
| e      | 5.08TYPE |      |
| E      | 9.9      | 10.4 |
| F      | 2.3      | 2.8  |
| L      | 12.6     | 13.3 |
| L1     | 3.1      | 3.4  |
| Q      | 3.2      | 3.4  |
| Q1     | 2.6      | 2.9  |
| ΦP     | 3.0      | 3.5  |



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. Please do not exceed the absolute maximum ratings of the device when circuit designing.
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