



# 75F60W

## 主要参数 MAIN CHARACTERISTICS

|                |       |
|----------------|-------|
| $I_F(AV)$      | 75A   |
| $V_{RRM}$      | 600 V |
| $V_F(typ)$     | 1.5V  |
| $T_{rr} (typ)$ | 45ns  |

## 用途

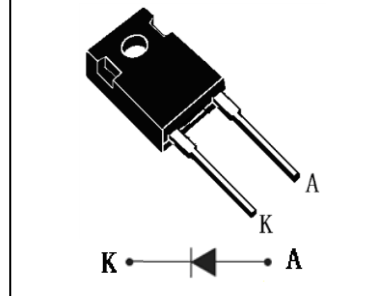
- 吸收回路
- 开关电源
- 高频开关器件并联二极管

## APPLICATIONS

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

## 封装 Package

TO-2472L



## 产品特性

- 超快恢复时间
- 低恢复损耗
- 低正向压降
- 低漏电流

## FEATURES

- Ultrafast Recovery Time
- Low Recovery Loss
- Low Forward Voltage
- Low Leakage Current

## 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 |                |                |
| 75F60W-GE-B           | 75F60W-GE-BR               | 75F60W         | TO-2472L       |



**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 $T_c=110^{\circ}\text{C}$<br>Average Forward Rectified Current | $I_{F(AV)}$   | 75            | A                  |
| 非重复浪涌正向电流<br>Non-Repetitive Surge Forward Current $t=8.3\text{ms}$      | $I_{FSM}$     | 600           | A                  |
| 雪崩能量<br>Avalanche Energy(per diode) $L=40\text{mH}$                     | $E_{AVL}$     | 100           | mJ                 |
| 结温<br>Junction Temperature                                              | $T_j$         | $-55\sim+150$ | $^{\circ}\text{C}$ |
| 存储温度<br>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> =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℃                                                                            |                                  | -                 | -                 | 800               | μA         |
| V <sub>F</sub>   | T <sub>j</sub> =25℃                                                                             | I <sub>F</sub> =75A              | -                 | 1.5               | 1.8               | V          |
|                  | T <sub>j</sub> =125℃                                                                            |                                  | -                 | -                 | 1.7               | V          |
| trr              | I <sub>F</sub> =0.5A, I <sub>R</sub> =1A, I <sub>RR</sub> =0.25A                                |                                  | -                 | 65                | 80                | ns         |
| trr              | I <sub>F</sub> =1A, V <sub>R</sub> =30V, di <sub>F</sub> /dt=-200A/μs                           |                                  | -                 | 40                |                   | ns         |
| trr              | I <sub>F</sub> =75A, V <sub>R</sub> =400V, di <sub>F</sub> /dt=-200A/μs<br>T <sub>C</sub> =25℃  |                                  | -                 | 75                | -                 | ns         |
| Q <sub>rr</sub>  |                                                                                                 |                                  | -                 | 260               | -                 | nc         |
| I <sub>RRM</sub> |                                                                                                 |                                  | -                 | 5.7               | -                 | A          |
| trr              | I <sub>F</sub> =75A, V <sub>R</sub> =400V, di <sub>F</sub> /dt=-200A/μs<br>T <sub>C</sub> =125℃ |                                  | -                 | 225               | -                 | ns         |
| Q <sub>rr</sub>  |                                                                                                 |                                  | -                 | 1100              | -                 | nc         |
| I <sub>RRM</sub> |                                                                                                 |                                  | -                 | 10                | -                 | 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 | $R_{th(j-c)}$ | 0.4               | $^{\circ}\text{C}/\text{W}$ |





## 特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 TYPICAL FORWARD CHARACTERISTICS

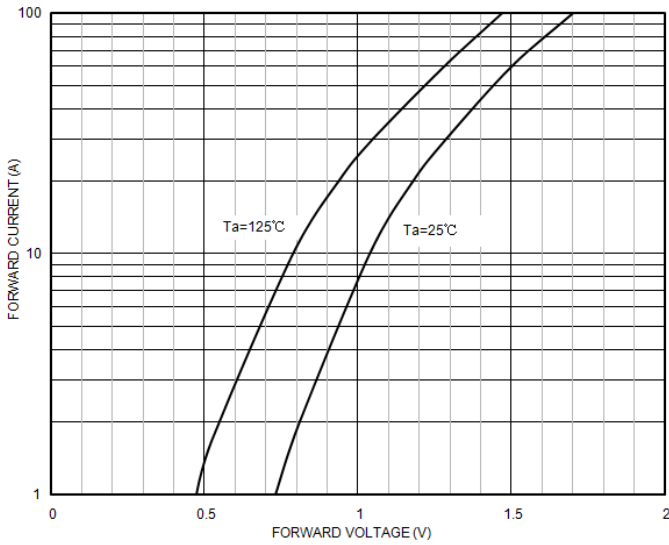


Fig.2 TYPICAL REVERSE CHARACTERISTICS

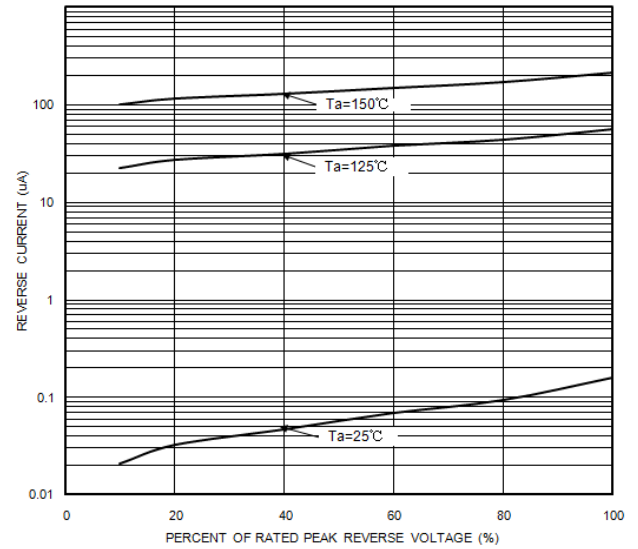
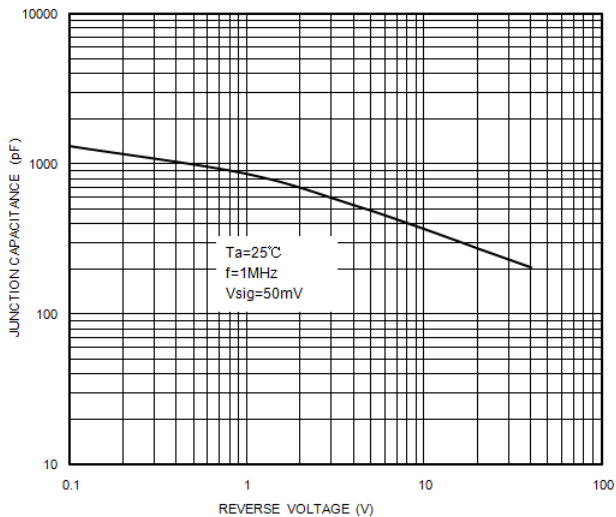
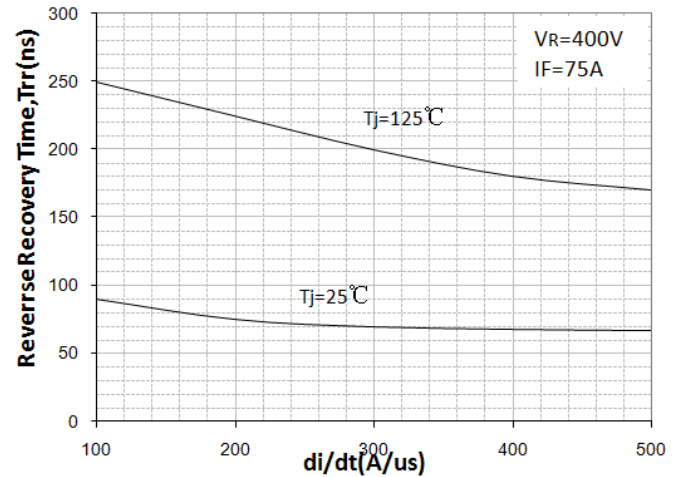
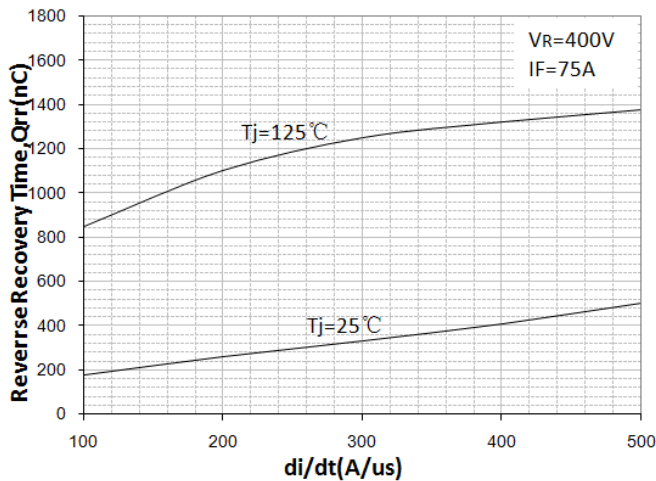
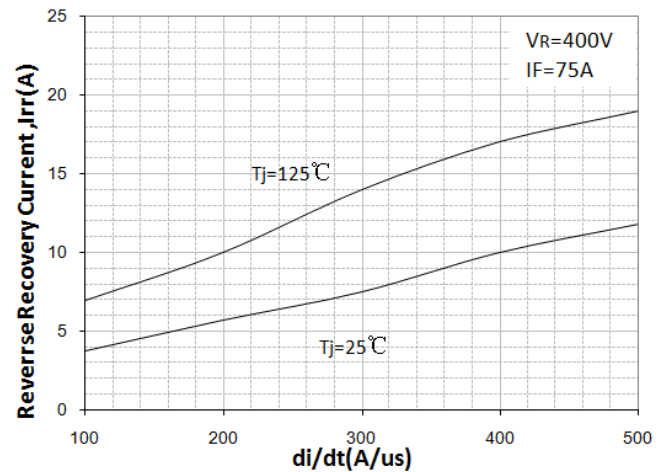


Fig.3 TYPICAL JUNCTION CAPACITANCE

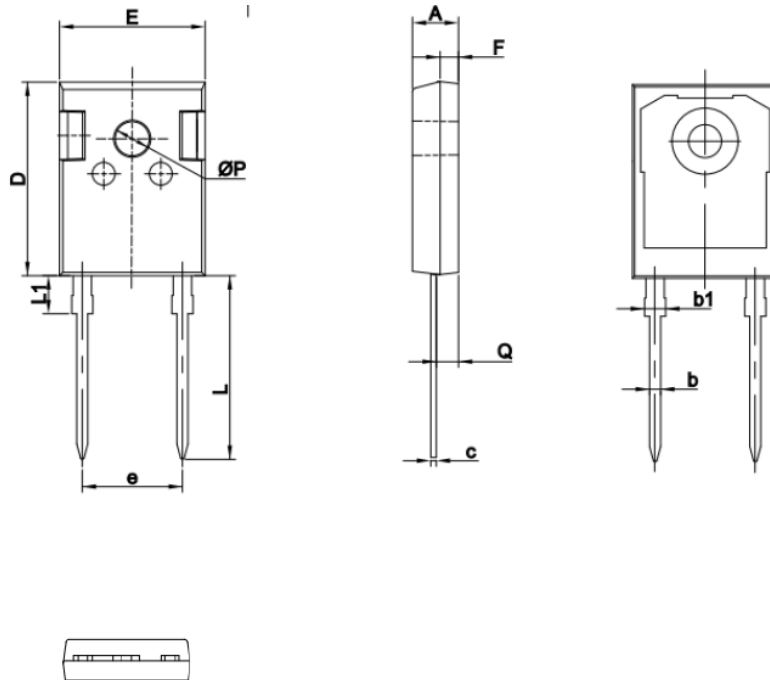
Fig.4 Reverse recovery time versus  $di/dt$ Fig.5 Reverse recovery charges versus  $di/dt$ Fig.6 Peak reverse recovery current versus  $di/dt$ 



外形尺寸 PACKAGE MECHANICAL DATA

TO-2472L

单位 Unit : mm



| SYMBOL | MM    |       |
|--------|-------|-------|
|        | MIN   | MAX   |
| A      | 4.80  | 5.20  |
| b      | 1.10  | 1.30  |
| b1     | 1.95  | 2.25  |
| c      | 0.50  | 0.70  |
| D      | 20.80 | 21.20 |
| E      | 15.60 | 16.00 |
| F      | 1.85  | 2.15  |
| e      | 10.73 | 11.03 |
| L      | 19.62 | 20.22 |
| L1     | 3.93  | 4.33  |
| ØP     | 3.40  | 3.80  |
| Q      | 2.26  | 2.56  |





### 注意事项

1. 吉林华微电子股份有限公司的产品销售分为直销和销售代理，无论哪种方式，订货时请与公司核实。
2. 购买时请认清公司商标，如有疑问请与公司本部联系。
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

### NOTES

1. Jilin Sino-microelectronics co.Ltd sales its product either through direct sales or sales agent , thus, for customers, when ordering , please check with our company.
2. We strongly recommend customers check carefully on the trademark when buying our product, if there is any question, please don't be hesitate to contact us.
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

