

厦门赛尔特电子有限公司

Xiamen SET Electronics Co.,Ltd.

中国厦门火炬高新区（翔安）产业区翔安西路 8067 号

No. 8067 West Xiang'an Road Torch High-Tech Industrial District

Xiang'an 361101 Xiamen P. R. CHINA

Tel: +86 592 5715-838,

Fax: +86 592 5715-839

E-mail: sales@setfuse.com

Websites: www.SETfuse.com

**SET**<sup>®</sup> fuse

# 规格书

## Specification For Approval

|                    |                                                                                                                                                                                |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 文件号 Document No.   | SET-1001-X-T154                                                                                                                                                                |
| 版本 Version         | 1.1                                                                                                                                                                            |
| 页数 Page            | 1 / 13                                                                                                                                                                         |
| 发行日期 Date of Issue | July 17, 2018                                                                                                                                                                  |
| 类别 Classification  | <input type="checkbox"/> 参考阶段 Reference<br><input type="checkbox"/> 样品阶段 Sample<br><input checked="" type="checkbox"/> 正式承认 Qualified<br><input type="checkbox"/> 工程变更 Changed |

|                                  |                                                                                                                                                                                                                                                                                   |                   |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| 产品名称 Product Name                | 温度保险丝 Thermal-link                                                                                                                                                                                                                                                                |                   |
| 产品型号 Model No.                   | X3                                                                                                                                                                                                                                                                                |                   |
| 产品编码 Product Code                | 1000100180006                                                                                                                                                                                                                                                                     |                   |
| 产品描述 Product Description         | 温度保险丝(径向型) Thermal-link(Radial Shape) GP X3<br>125 °C 3 A 250 Vac, 镀锡铜包钢线, 总长20 mm, 外露引线<br>长14 mm, 绝缘层外径Φ0.80 mm, 剥线长3 mm. Tinned Copper<br>Clad Steel Wire, Total Length 20 mm, Outside of Lead Wire<br>14 mm, Diameter of insulated sleeve Φ0.80 mm, Stripping<br>Length 3 mm. |                   |
| 额定电流, 电压 Rated Current & Voltage | 3 A, 250 Vac                                                                                                                                                                                                                                                                      | 3 A, 60 Vdc       |
| 认证 Agency Approval               | UL, cUL, PSE, CCC, KTL                                                                                                                                                                                                                                                            | UL, cUL           |
| 制造商 Manufacturer                 | 厦门赛尔特电子有限公司 Xiamen SET Electronics Co.,Ltd.                                                                                                                                                                                                                                       |                   |
| 产地 Country of Origin             | 中国 China                                                                                                                                                                                                                                                                          |                   |
| 拟制 Prepared By                   | 技术部审核 Reviewed By                                                                                                                                                                                                                                                                 | 品保部核准 Approved By |

## 客户批准 Customer Approval

|                     |                                                                                                            |      |      |
|---------------------|------------------------------------------------------------------------------------------------------------|------|------|
| 客户名称 Customer Name  | 施耐德电气（中国）有限公司深圳分公司                                                                                         |      |      |
| 客户料号 Customer P/N   |                                                                                                            |      |      |
| 结论 Conclusion       | <input type="checkbox"/> 合格（承认） Qualified<br><input type="checkbox"/> 不合格 Unqualified<br>不合格原因 Root Cause: |      |      |
| 生效日期 Effective Date | 年 YY                                                                                                       | 月 MM | 日 DD |

|                |                |                |
|----------------|----------------|----------------|
| 经办 Prepared By | 审核 Reviewed By | 核准 Approved By |
|----------------|----------------|----------------|

1、如果本规格获得你们的批准, 请签名并拷贝一份副本给我们。

IF YOU APPROVE THIS SPECIFICATION ,PLEASE SIGN AND RETURN ONE COPY TO US.

2、给赛尔特下订单时, 请在订单中列出上述表格中的: 产品型号、产品编码对应的内容。

PLEASE WRITE THE RELATED PRODUCT MODEL, PRODUCT CODE SHOWN IN THE ABOVE SPECIFICATION INTO THE PURCHASING ORDER(PO) THAT YOU PROVIDE TO SET.

## 目录 Catalogue

|      |                                                          |    |
|------|----------------------------------------------------------|----|
| 1    | 适用 Scope.....                                            | 3  |
| 2    | 术语 Glossary .....                                        | 3  |
| 2.1  | 热熔断体 Thermal-link (TCO).....                             | 3  |
| 2.2  | 额定动作温度 Rated Function Temperature ( $T_f$ ).....         | 3  |
| 2.3  | 实测熔断温度 Fusing Temperature .....                          | 3  |
| 2.4  | 保持温度 Holding Temperature ( $T_h$ ) .....                 | 3  |
| 2.5  | 极限温度 Maximum Temperature Limit ( $T_m$ ) .....           | 3  |
| 2.6  | 额定电流 Rated Current ( $I_r$ ).....                        | 3  |
| 2.7  | 额定电压 Rated Voltage ( $U_r$ ) .....                       | 3  |
| 2.8  | 瞬态过载电流 Transient Overload Current ( $I_p$ ) .....        | 4  |
| 3    | 结构尺寸 Structure and Dimension .....                       | 4  |
| 3.1  | 结构图 Structure .....                                      | 4  |
| 3.2  | 主要原材料明细 Main Material List (详见图 As Show in Fig. 1) ..... | 4  |
| 3.3  | 尺寸 Dimension (mm) .....                                  | 4  |
| 4    | 安规认证 Agency Approvals.....                               | 4  |
| 5    | 技术参数表 Specifications.....                                | 5  |
| 6    | 检验方法和标准 Inspection Method & Standards .....              | 5  |
| 7    | 安全预防措施 Safety Precautions.....                           | 6  |
| 8    | 标示及包装 Marks and Package.....                             | 10 |
| 8.1  | 产品本体标示 Marking on Products .....                         | 10 |
| 8.2  | 小包装袋标示以下事项 Marking on Package.....                       | 10 |
| 8.3  | 包装 Packaging.....                                        | 10 |
| 9    | 产品批号&追溯号识别 Lot No. & Tracking No. System .....           | 11 |
| 9.1  | 产品批号识别 Lot No. System.....                               | 11 |
| 9.2  | 产品追溯号识别 Tracking No. System .....                        | 11 |
| 10   | 储存条件和有效日期 Store Conditions and Effective Date .....      | 11 |
| 11   | 规格书之有效性 Validity.....                                    | 12 |
| 11.1 | 有关修订之协议 Agreement of Revision.....                       | 12 |
| 11.2 | 有效性 Validity .....                                       | 12 |
|      | 履历 Revision History.....                                 | 13 |

|                                                 |                                   |                  |
|-------------------------------------------------|-----------------------------------|------------------|
| 产品型号 Product Model : X3                         | 文件名 Doc. Name : 规格书 Specification | 版本 Version : 1.1 |
| 产品规格 Product Specification : 125 °C 3 A 250 Vac | 文件号 Doc. No. : SET-1001-X-T154    | 页数 Page : 3 / 13 |

# 1 适用 Scope

本规格书适用于温度保险丝 X3（以下简称温度保险丝）之规定。  
The specification is available for Thermal-link product, and the product mode is X3, hereinafter referred to as Thermal-link.

## 2 术语 Glossary

### 2.1 热熔断体 Thermal-link (TCO)

热熔断体也称为热断路器或温度保险丝，在本文中这些不同名词都代表同样的产品，为一次性动作而不可复位的装置。  
Thermal-link/Thermal Cutoff (TCO), known as thermal fuse. All the names are the same in this context, functioning once only, non-resettable.

### 2.2 额定动作温度 Rated Function Temperature ( $T_f$ )

通 10 mA 的负载电流时，加热使温度保险丝断开的温度。  
The temperature of the Thermal-link which causes it to change the state of conductivity with a detection current up to 10 mA as the only load.  
允许偏差 Tolerance:  $T_{f,0}^0$  °C (GB 9816, EN 60691, K60691).  
允许偏差 Tolerance:  $T_f \pm 7$  °C (J60691).

### 2.3 实测熔断温度 Fusing Temperature

置于油池中，通 10 mA 以下的负载电流，每分钟升温 0.5 °C ~1 °C，测断开温度。  
The temperature of the Thermal-link which causes it to change its state of conductivity is measured with silicone oil bath in which the temperature is increased at the rate of 0.5 °C ~1 °C / min, with a detection current up to 10 mA as the only load.

### 2.4 保持温度 Holding Temperature ( $T_h$ )

持续通额定电流 168 小时不断开的最高温度。  
The Maximum temperature at which a Thermal-link will not change its state of conductivity when conducting rated current for 168 h.

### 2.5 极限温度 Maximum Temperature Limit ( $T_m$ )

在规定的时间内不破坏机械和电气特性所能承受的最高温度。  
The temperature of the Thermal-link stated by the manufacturer, up to which the mechanical and electrical properties of the Thermal-link having changed its state of conductivity, will not be impaired for a given time.

### 2.6 额定电流 Rated Current ( $I_r$ )

温度保险丝分类用，允许用于电路并安全断开的最大电流。  
The current used to classify a Thermal-link, which is the Maximum current that Thermal-link allows to carry and is able to Cut off the circuit safely.

### 2.7 额定电压 Rated Voltage ( $U_r$ )

温度保险丝分类用，允许用于电路并安全断开的最高电压。  
The voltage used to classify a Thermal-link, which is the Maximum voltage that Thermal-link allows to carry and is able to Cut off the circuit safely.

**2.8** 瞬态过载电流 Transient Overload Current ( $I_p$ )

温度保险丝在不破坏特性的情况下，所能承受的最大瞬态过载电流。

A direct current pulse at which the Thermal-link is able to withstand without impairing it's characteristics.

**3 结构尺寸 Structure and Dimension**

**3.1** 结构图 Structure

温度保险丝由易熔合金、助熔断剂、外壳、封口树脂及引脚等组成。

Thermal-link is made up of fusible alloy, flux, case, sealant and lead wire.

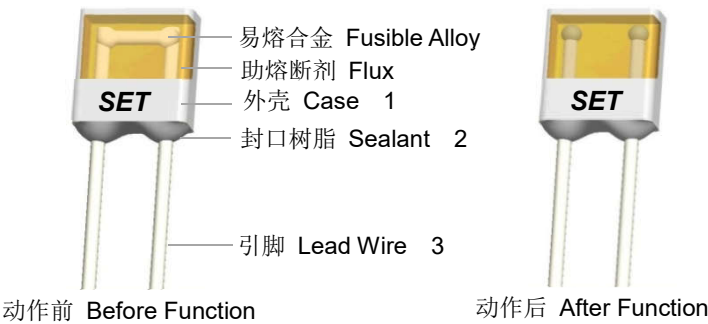


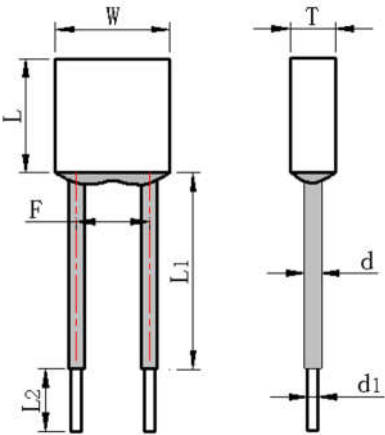
图 Fig .1

**3.2** 主要原材料明细 Main Material List (详见图 As Show in Fig. 1)

| 项目               | 编号 No.             |                       |                                                        |
|------------------|--------------------|-----------------------|--------------------------------------------------------|
|                  | 1                  | 2                     | 3                                                      |
| 零件名<br>Part Name | 外壳<br>Case         | 封口树脂<br>Sealant       | 引脚<br>Lead Wire                                        |
| 材质<br>Materials  | 塑料<br>Plastic Case | 环氧树脂<br>Sealant Epoxy | 绝缘镀锡铜包钢线<br>Insulated Tinned Copper Clad<br>Steel Wire |

**3.3** 尺寸 Dimension (mm)

|                |                                 |
|----------------|---------------------------------|
| W              | 5.8±0.5                         |
| L              | 5.8±0.5                         |
| L <sub>1</sub> | 11±1                            |
| L <sub>2</sub> | 3±1                             |
| T              | 2.3±0.2                         |
| d              | Φ0.8±0.1 绝缘层<br>Insulated Layer |
| d <sub>1</sub> | Φ0.54±0.05                      |
| F              | 3.7±0.5                         |



**4 安规认证 Agency Approvals**

| 认证机构 Agency                                                                             | 标准 Standards   | 认证号 File NO. | 类别 Category |
|-----------------------------------------------------------------------------------------|----------------|--------------|-------------|
|  UL  | UL60691        | E214712      | XCMQ2       |
|  cUL | CAN-CSA-E60691 | E214712      | XCMQ8       |

|                                                                                   |     |        |                  |     |
|-----------------------------------------------------------------------------------|-----|--------|------------------|-----|
|  | PSE | J60691 | PSE16021066      | N/A |
|  | KTL | K60691 | SU05023-6003B    | N/A |
|  | CCC | GB9816 | 2009010205346083 | N/A |

## 5 技术参数表 Specifications

| 额定动作温度<br>Rated<br>Functioning<br>Temp.<br>$T_f$ | 实际动作<br>温度<br>Fuse<br>Temp. | 保持温度<br>Holding<br>Temp.<br>$T_h$ | 极限温度<br>Maximum<br>Temp. Limit<br>$T_m$ | 额定电流<br>Rated<br>Current<br>$I_r$ | 额定电压<br>Rated<br>Voltage<br>$U_r$ | 印刷油墨<br>Color of<br>Printing Ink |
|--------------------------------------------------|-----------------------------|-----------------------------------|-----------------------------------------|-----------------------------------|-----------------------------------|----------------------------------|
| (°C)                                             | (°C)                        | (°C)                              | (°C)                                    | (A)                               | (V)                               |                                  |
| 125                                              | 121±2                       | 100                               | 200                                     | 3                                 | AC 250<br>DC 60                   | 黑色<br>Black                      |

## 6 检验方法和标准 Inspection Method & Standards

| 序号<br>No. | 项目<br>Items                                       | 检验工具<br>Inspection Tools                             | 检验标准<br>Inspection Standards                                                                                                                                                               |
|-----------|---------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1         | 外观<br>Appearance                                  | 目视<br>Visual                                         | 在充足光线下观察引脚无氧化发黑。<br>Observe the lead wire in bright room, and it can't be black for oxidation.                                                                                             |
| 2         | 尺寸<br>Dimension                                   | 千分尺<br>Micrometer<br>游标卡尺<br>Calipers                | 采用千分尺或游标卡尺测量，需符合 3.3 要求。<br>Using a micrometer or caliper measurements, the dimension must meet requirement listed in 3.3.                                                                 |
| 3         | 拉力<br>Pull                                        | 推拉试验仪<br>Push Pull Tester                            | 引脚承受的 4.58 N 拉力 1 分钟，不损伤、脱落。<br>The lead wire won't be broken down when it is endured a pull force of 4.58 N for 1 min.                                                                    |
| 4         | 扭转<br>Twist                                       | 手工测试<br>Manual Testing                               | 引脚扭转 180°×4 次，不损伤、松动。<br>The lead wire won't be broken down when it is bent 180° for 4 times.                                                                                              |
| 5         | 动作温度准确性<br>The Accuracy of<br>Fuse<br>Temperature | 动作温度试验仪<br>(油池)<br>Function<br>Temperature<br>Tester | 依照 IEC60691 及 UL 60691 检验方法,用油池测量,需符合 5.0 要求。<br>According to approach provided in IEC60691 and UL 60691.Test it in a silicon oil bath, the result must meet the requirements list in 5.0. |
| 6         | 绝缘电阻<br>Insulation<br>Resistance                  | 绝缘电阻表<br>Insulation<br>Resistance Meter              | 动作后，两引脚间绝缘电阻 > 0.2 MΩ，测试电压为 2× $U_r$ (Vdc)。<br>After function under a testing voltage of 2× $U_r$ (Vdc), the insulation resistance between lead wires is at least 0.2 MΩ.                  |

|                                                                                                                                                                                                                       |                                           |                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                       |                                           |                                              | <p>引脚与外壳间绝缘电阻 <math>&gt; 2\text{ M}\Omega</math>，测试电压为 <math>2\times U_r</math> (Vdc)。</p> <p>After function under a testing voltage of <math>2\times U_r</math> (Vdc), the insulation resistance between case and lead wires is at least <math>2\text{ M}\Omega</math>.</p>                                                                                                                                                               |
| 7                                                                                                                                                                                                                     | <p>耐压</p> <p>Dielectric Strength test</p> | <p>耐压试验仪</p> <p>Voltage Withstand Tester</p> | <p>动作后，两引脚间承受：<math>(2\times U_r)\text{ V}\times 1</math> 分钟,不击穿。</p> <p>After function, it won't breakdown when the lead wires endured a voltage of <math>(2\times U_r)\text{ V}</math> for 1 min.</p> <p>引脚与外壳间承受：<math>1000 + (2\times U_r)\text{ V}\times 1</math> 分钟，不击穿。</p> <p>After function, it won't breakdown when a voltage of <math>1000 + (2\times U_r)\text{ V}</math> is applied between lead wire and case for 1 min.</p> |
| <p>备注：测试条件为温度 <math>25\pm 10\text{ }^{\circ}\text{C}</math>、湿度 <math>65\pm 15\%</math>。</p> <p>Remark: Test Conditions: Temperature is <math>25\pm 10\text{ }^{\circ}\text{C}</math>, RH <math>65\pm 15\%</math>.</p> |                                           |                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                            |

## 7 安全预防措施 Safety Precautions

- 7.1

使用中须注意，每个型号的温度保险丝都有其特定的电流、电压规格以及温度规格，包括  $T_f$ （额定动作温度）、 $T_h$ （保持温度）、 $T_m$ （极限温度）以及其电流、电压的规格，详见技术参数表。

Each Thermal-link has specific electrical and temperature ratings and must be used with the prescribed ratings. These ratings include  $T_f$  (Rated Functioning Temp.),  $T_h$  (Holding Temp.),  $T_m$  (Max. Temp. Limit), and the electrical Ratings. Please refer to technical data sheet.
- 7.2

温度保险丝是不可修复的产品。基于安全原因，替换时应使用同类别同型号的温度保险丝并且严格按照同样的方法正确安装。

Thermal-link is a non-repairable product. For safety aspect, it shall be replaced by an equivalent Thermal-link, and mounted in the same way.
- 7.3

安装温度保险丝时要确保其安装位置的环境温度及温度保险丝带载时的产品表面温度不会超过其相应规格中的保持温度。

When mounting Thermal-link, please guarantee the ambient temperature of the mounting position and the surface temperature of Thermal-link itself at working are not exceeding the holding temperature specified in the related specifications.
- 7.4

终端产品需要确保温度保险丝仅能从预定的热源处（辐射源、对流源、和热传导）感受温度。例如应用于加热器,温度保险丝不能让导线过多受热，这样会加速保险丝熔化断裂；如用于变压器或发动机，温度应该由变压器或发动机线圈控制,这时温度保险丝就需与变压器或发动机线圈之间有良好的热传导。

The terminal product should be designed to ensure that Thermal-link detects only from intended heat source (radiant, convection, and conductance). For example, in a heater application, Thermal-link lead wires should not be heated so much, because it will

accelerate the fusing off of the Thermal-link. In transformer or motor application, where the temperature should be controlled by the transformer or motor coil, Thermal-link should have good Thermo-coupling with the transformer or motor coil.

**7.5** 建议采用内置热电偶式的仿真温度保险丝来确定适合的温度要求和安装位置。  
It is recommended that a dummy Thermal-link with inbuilt Thermo-couple shall be used to determine the proper temperature and location of the Thermal-link.

**7.6** 勿将温度保险丝安装在可能经常出现剧烈振动的地方。  
Do not locate the Thermal-link in a place where severe vibration always occurs.

**7.7** 需对最终产品进行测试，以确保潜在的异常状况不会导致温度保险丝超过其极限温度。  
The terminal product should be tested to ensure that potential abnormal conditions do not cause ambient temperature to exceed the Tm of the Thermal-link.

**7.8** 保险丝的封口及主体不能受损，烧伤或者过度受热。  
The seal or body of Thermal-link must not be damaged, burned or over heated.

**7.9** 安装温度保险丝 Mounting Thermal-link

**7.9.1** 将温度保险丝安装在可使其温度可以平稳上升的部位。  
Mount the Thermal-link at the location where temperature rises evenly.

**7.9.2** 确保引脚足够长，且其安装方法不会造成强行按压、拉伸及扭转引脚之现象。  
Ensure that the lead wire is long enough, and avoid actions such as press, tensile or twist.

**7.10** 引脚弯曲 Lead Wire Bending

**7.10.1** 如果一定要弯折引脚，那么应确保弯折处与主体间的距离，如表 1。  
If the lead wire has to be bent, please pay attention to the distance between body and the bending point. Refer to the table 1.

表 Table 1

|   |          |          |
|---|----------|----------|
| D | ≤Φ1.0 mm | >Φ1.0 mm |
| L | ≥3 mm    | ≥5 mm    |

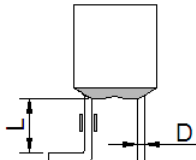


图 Fig. 2

**7.10.2** 弯折引脚时请使用钳子或其它工具固定（如图 2 所示），以免损坏产品。  
When bending the leads, please use pincher or similar tools to fix the product as shown in Fig.2, to avoid damaging the product.

**7.10.3** 在成形和安装过程中，对引脚进行裁切、切割、弯折时，请勿用力过猛，以免造成产品断裂或本体损伤。

During forming and mounting, lead wire should not be cut, nicked, bent sharply, to avoid breaking the product.

- 7.10.4

在避免直接对引脚根部施加外力（比如与温度保险丝主体成一定角度推或拉），以免损坏温度保险丝封口。

Tangential forces on the leads must be avoided (i.e. pushing or pulling on the leads at angle to Thermal-link body) as such forces may damage the seal of Thermal-links.
- 7.11

设计终端产品时应考虑到与引脚接触的零部件因膨胀及收缩所造成的应力、振动或其他运动，应采用柔韧的、易弯曲的引脚或者低阻抗引线来连接温度保险丝。

Stress, vibration or other movement caused by expansion and contraction of the parts connected to the leads should be considered when designing the terminal product. A flexible lead or lead with low resistance should be used to connect the Thermal-link.
- 7.12

应确保接触电阻为最小值，需要对连接点进行检查以确保引脚与被连接物连接可靠，不正确的连接可能造成温度保险丝提前失效，引起封口或其他部份的损坏，并且不良连接产生的高阻抗可能导致器件过热而引起断路或损坏。

Contact resistance should be minimal. Improper connection may cause Thermal-link to fail in advance. The joints should be inspected to ensure adequate mechanical bonding of Thermal-link leads and connection parts. Improper connections may cause damage to the seal or other parts. Improper connections may cause high resistance, which may result in open circuit or nuisance tripping of the devices.
- 7.13

与引脚的连接及连接的材料 Connecting leads and connection materials
- 7.13.1

若需外露一定长度的引脚，应该采取相应措施，防止温度保险丝引脚歪斜或损坏。

If it is necessary to expose the lead of Thermal-link, there shall be some measurements to avoid the lead deflection or damage.
- 7.13.2

所采用的连接材料或夹具应为抗腐蚀材料。

Connection materials or pinchers should be materials of anti-corrosion.
- 7.13.3

应采用长度及柔韧度充足的引脚，温度保险丝和连接物结合应是可靠的，以避免在正常工作状态下发生的振动或弯折对温度保险丝造成损伤。

Leads should be sufficiently long and flexible. The joints of Thermal-link leads and connecting parts should be reliable to avoid the damage caused by the vibration or bending during normal operation.
- 7.14

引脚焊接 Soldering
- 7.14.1

焊接必须在表 2 所列的条件下进行。

Soldering should be carried out under the soldering conditions listed in table 2.

表 Table 2: 焊接时间 Soldering Time (s)

| 额定温度<br>Rated<br>Functioning<br>Temp.<br>$T_f$ (°C) | 最大允许焊接时间<br>Max. Allowable Soldering Time (s) |       |       | 焊接温度<br>Soldering Temp.<br>(°C) | 图示<br>Show                                                                          |
|-----------------------------------------------------|-----------------------------------------------|-------|-------|---------------------------------|-------------------------------------------------------------------------------------|
|                                                     | 引线长度 Length of Lead Wire (L)                  |       |       |                                 |                                                                                     |
|                                                     | 10 mm                                         | 20 mm | 30 mm |                                 |                                                                                     |
| 76~101                                              | 4 <sup>a</sup>                                | 5     | 6     | 400                             |  |
| 102~115                                             | 4 <sup>a</sup>                                | 5     | 6     |                                 |                                                                                     |
| 116~135                                             | 4 <sup>a</sup>                                | 6     | 8     |                                 |                                                                                     |
| 136~150                                             | 6                                             | 8     | 8     |                                 |                                                                                     |
| 151~221                                             | 7                                             | 9     | 10    |                                 |                                                                                     |

a: 为防止温度保险丝被焊断，焊接时视需要增加辅助散热装置。  
 Auxiliary heat sink fixture is required to avoid Thermal-link cutting off unexpectedly.

- 7.14.2

由于温度保险丝中与引脚连接的易熔合金是可熔化的合金，因此不正确的焊接操作（例如：温度过高、焊时长、引脚过短等）可能导致易熔合金被引脚传递的过高热量所影响，从而使得温度保险丝提前断开。

The thermal element of Thermal-link is fusible alloy, improper soldering operation (too high soldering temperature, too long soldering time, too short lead wire etc.) will cause thermal element to melt in advance.
- 7.14.3

若需要在比表 2 规定更为严苛环境下进行焊接时，应在焊接点和温度保险丝主体间的引脚上使用散热装置。

When soldering conditions are more severe than those listed in table 2, a heat sink fixture should be used between solder point and Thermal-link body.
- 7.14.4

焊接时应小心，以避免温度保险丝主体和引脚遭受到推/拉力以及扭力。

Perform the soldering operation carefully so that the pull/push and twist tensions are not applied to Thermal-link body and leads.
- 7.14.5

焊接后应让其自然冷却 20 秒以上，在冷却期间，勿移动温度保险丝本体和引脚。

After soldering, leave it for natural cooling for longer than 20 s. During this cooling time, never move the Thermal-link body and leads.
- 7.15

安装温度保险丝时应注意防潮。如果温度保险丝是用于咖啡壶、热水器、干燥机、湿度调节器等环境下，那么应将温度保险丝安装在无水泄漏或低湿度的部位。

Mounting Thermal-link, damp proof will be considered. If Thermal-link is applied to coffeepot, hot water heater, dryer, hygrostat, etc., Thermal-link should be located at the position where there is no leaking water or low humidity.
- 7.16

安装完成后，应确保整体结构符合应用标准的要求。

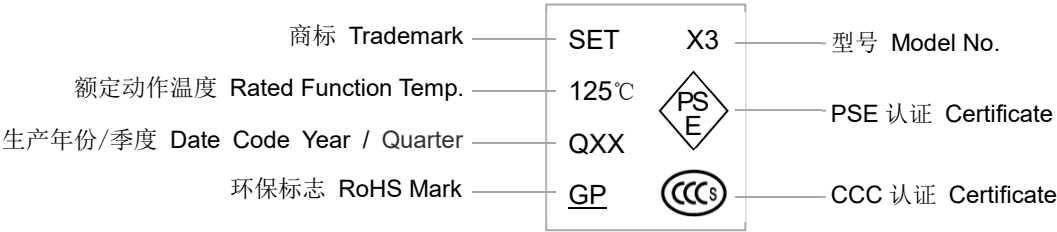
After mounting, the whole construction shall comply with the application standards.
- 7.17

在使用产品前，请认真阅读产品使用说明书。

Please carefully read instruction manual before using the product.

## 8 标示及包装 Marks and Package

### 8.1 产品本体标示 Marking on Products



### 8.2 小包装袋标示以下事项 Marking on Package

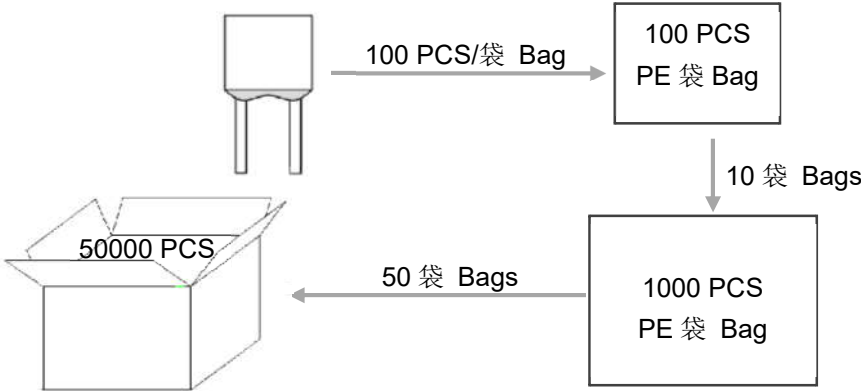
- 商标 Trademark
- RoHS 标志 Mark
- 品名 Product Name
- 安规认证标志 Certificate Mark
- 产品型号 Model No.
- 额定动作温度 Rated Function Temp. ( $T_f$ )
- 保持温度 Holding Temp. ( $T_h$ )
- 极限温度 Max Temp. ( $T_m$ )
- 额定电流 Rated Current ( $I_r$ )
- 额定电压 Rated Voltage ( $U_r$ )
- 数量 Quantity
- 批号 Lot No.
- 安规认证标准 Certificate Standards
- 制造公司名称 Manufacturer's Name

|                                                                     |           |
|---------------------------------------------------------------------|-----------|
|                                                                     |           |
| Model No.                                                           | X3 环保制品   |
| $T_f$ (Function Temp.)                                              | 125 °C    |
| $T_h$ (Holding Temp.)                                               | 100 °C    |
| $T_m$ (Max Temp.)                                                   | 200 °C    |
| $I_r$ (Rated Current)                                               | 3 A       |
| $U_r$ (Rated Voltage)                                               | 250 V(AC) |
| Quantity                                                            | 100 PCS   |
| Lot No.                                                             |           |
| Standard: UL60691, EN60691, J60691, K60691, CAN/CSA-E60691, GB9816. |           |
| XIAMEN SET ELECTRONICS CO.,LTD.                                     |           |
| <a href="http://www.SETfuse.com">http://www.SETfuse.com</a>         |           |

### 8.3 包装 Packaging

|                | 包装方式与要求 Packing Method and Requirement |                           |                              |
|----------------|----------------------------------------|---------------------------|------------------------------|
|                | 小包装袋<br>Small Package                  | 大包装袋<br>Big Package       | 装箱<br>A Boxful               |
| 数量<br>Quantity | 100 PCS                                | 10 Bags *100 PCS=1000 PCS | 50 Bags *1000 PCS =50000 PCS |

包装示意图 Packaging Drawing:



9 产品批号&追溯号识别 Lot No. & Tracking No. System

9.1 产品批号识别 Lot No. System

9.1.1 以下图 3 所示的产品批号规则有效期至 2016 年 7 月 10 日。  
This Lot No. rule Valid until July 10, 2016 in Fig.3.

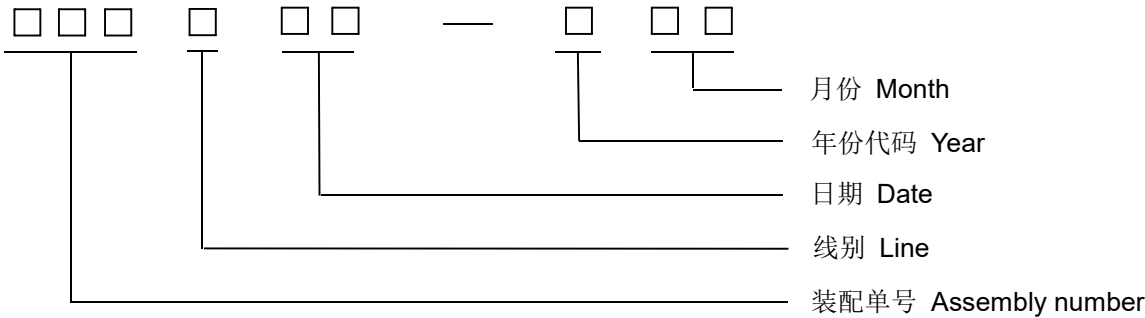


图 Fig. 3 产品批号识别 Lot No. System

9.1.2 以下图 4 所示产品批号的规则自 2016 年 7 月 11 日号开始执行。  
This Lot No. rule will apply from July 11, 2016 in Fig.4.

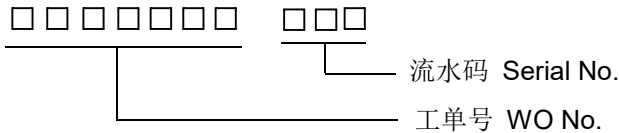


图 Fig. 4 产品批号识别 Lot No. System

9.2 产品追溯号识别 Tracking No. System

以下所示产品追溯号规则自 2016 年 7 月 11 日号开始执行。  
This Tracking No. rule will apply from July 11, 2016.

外包装追溯号，如图 5：  
Tracking No. on the Outer Package:

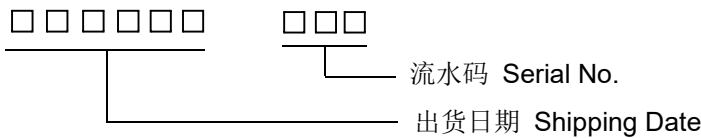


图 Fig. 5 外包装追溯号 Tracing No. on the Outer Package

10 储存条件和有效日期 Store Conditions and Effective Date

温度保险丝的保存期为贵公司入库后 12 个月。温度保险丝必须避免日光照射及污染的环境，且在温度 10 °C ~30 °C 、湿度 30%~70%的条件下保存。  
The validity period of fuse is 12 months after you receive it. And Thermal-link must be kept in a place with no sunshine or no pollution, with temperature 10 °C ~30 °C and humidity within 30%-70%.

11 规格书之有效性 **Validity**

11.1 有关修订之协议 **Agreement of Revision**

本承认书的内容若有不充分或有必要修订时，得由两公司协议后再行修订。  
If the content of this specifications is inadequate or need revising, it will be revised after both parties' agreement.

11.2 有效性 **Validity**

本承认书提出后，於贵公司承认期间，可暂时使用，若经过 1 个月后贵公司无异议或无签回承认本时，则视同有效文件运用。  
The specifications can be used temporarily during the period of approval. If you have no any objection or not return one hardcopy to us within one month, this specifications will be operated as a valid document.

-以下无正文 **END**-

