



深圳市蓝宝安科电子有限公司

Shenzhen LanbaoAnke Electronics Co.,Ltd.

# 承 认 书

## APPROVAL SHEET

|         |            |
|---------|------------|
| 编号 NO.  | LB-RF10-01 |
| 版次 Ver. | A/2        |

|                |  |
|----------------|--|
| 客户<br>Customer |  |
|----------------|--|

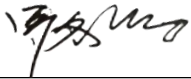
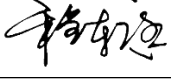
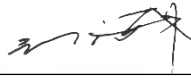
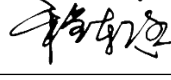
|               |        |
|---------------|--------|
| 品名<br>Product | 陶瓷管保险丝 |
| 系列<br>Series  | RFI-10 |

| 料号Part No.      | 规格描述Specification | 备注Remark |
|-----------------|-------------------|----------|
| 蓝宝<br>LB fuse   |                   |          |
| 客 户<br>Customer |                   |          |

| 供应商-蓝宝<br>Supplier-LB fuse | 零件承认章<br>Approval Signet | 客户<br>Customer | 零件承认章<br>Approval Signet |
|----------------------------|--------------------------|----------------|--------------------------|
| 制作<br>Make                 |                          |                |                          |
| 审查<br>Check                |                          |                |                          |
| 批准<br>Approval             |                          |                |                          |

| 联络Contact         |             |             |                    |
|-------------------|-------------|-------------|--------------------|
| 业务Sales           | 电话Telephone | 手机Cellphone | 邮箱E-mail           |
|                   |             |             | lanbaofuse@163.com |
| 零件承认后敬请回签一份给我司留存。 |             |             |                    |

History of Change变更记录

| NO. | 日期<br>Date | 描述<br>Description | 版次<br>Edition | 修改<br>modified by                                                                   | 审核<br>Checked by                                                                    |
|-----|------------|-------------------|---------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1   | 2020.11.17 | 新制订               | A/1           |  |  |
| 2   | 2023.04.03 | 更改为新封面            | A/2           |  |  |
| 3   |            |                   |               |                                                                                     |                                                                                     |
| 4   |            |                   |               |                                                                                     |                                                                                     |
| 5   |            |                   |               |                                                                                     |                                                                                     |
| 6   |            |                   |               |                                                                                     |                                                                                     |
| 7   |            |                   |               |                                                                                     |                                                                                     |
| 8   |            |                   |               |                                                                                     |                                                                                     |
| 9   |            |                   |               |                                                                                     |                                                                                     |
| 10  |            |                   |               |                                                                                     |                                                                                     |
| 11  |            |                   |               |                                                                                     |                                                                                     |

## 1. 适用范围 / SCOPE

RFI-10(1F) 系列超小型保险丝，适用于一般电子设备。

RFI-10(1F) series Micro-Fuse, used in electronic equipment.

## 2. 产品型号 / TYPE

例「example」：

|        |   |    |      |                                                                                                                                                                                                                                                                                                                                         |
|--------|---|----|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RFI-10 | F | 1A | 250V |     |
| 1      | 2 | 3  | 4    | 5                                                                                                                                                                                                                                                                                                                                       |

- ①系列号/Series Number
- ②延时性F/Fast Acting
- ③额定电流/Rated Current
- ④额定电压/Rated Voltage
- ⑤认证符号/Approved Symbol

## 3. 额定电流和额定电压/ RATED CURRENT AND RATED VOLTAGE

额定电流 / Rated Current:

500mA, 630mA、1A、1.25A、1.6A、2A、2.5A、3.15A、5A、6.3A、10A

额定电压 / Rated Voltage:

250VAC

## 4. 标示 / MARKING

保险丝两端铜帽上需有下列标示/The fuses cap shall have the following marking

①规格：额定电流+额定电压

Specification: Rated Current + Rated Voltage

500mA~10A: F \_ mA/ \_ A 250 V

②商 标：制造工厂的商标+系列号+认证符号

Trade mark: The Manufacture's Logo +Part Number + Approved Symbol.

500mA~10A **LB**®    

注意 / Note:

对标示的大小和位置没有规定 / Size and position of the markings shall not be provided.

## 5. 外观及形状 / APPEARANCES AND CONFIGURATION

5-1 外观：不应有破碎、明显的污斑。

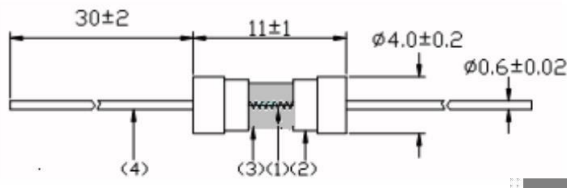
Appearances: There shall not be break up and any remarkable blotch.

5-2 形状：带脚的超小型保险丝。

Configuration: Axial Leaded Micro -Fuse.

## 6.工程图和结构 / OUTLINE DRAWING AND STRUCTURE

### 6-1 工程图（单位：mm） / Outline Drawing and Dimensions (Unit: mm)



### 6-2 结构 / Structure

| 编号<br>No | 元件<br>Component | 材质<br>Material                   | 数量<br>Quantity |
|----------|-----------------|----------------------------------|----------------|
| ①        | 熔丝<br>Wire      | 合金<br>Alloy                      | 1              |
| ②        | 铜帽<br>Cap       | 黄铜镀镍<br>Brass with nickel plated | 2              |
| ③        | 本体<br>Body      | 陶瓷管<br>Ceramic Tube              | 1              |
| ④        | 引线<br>Lead      | 镀锡铜线<br>Tinned Copper wire       | 2              |
| ⑤        | 填充物<br>Lead     | 石英砂<br>Quartz sand               | 选装项            |

## 7.特性 / PRODUCT CHARACTERISTICS

### 7-1 引脚拉力强度 / Lead Pull Strength

10 牛顿 10±1 秒 / 10N for 10±1 Sec.

### 7-2 引脚推力强度 / Lead Thrust Strength

2 牛顿 10±1 秒 / 2N for 10±1 Sec.

### 7-3 可焊性 / Solderability

波峰焊/Wave : 260°C, ≤3s;

烙铁焊/Soldering Iron: 350±10°C, ≤3s.

### 7-4 耐焊接热 / Soldering Heat Resistance

波峰焊/Wave : 260°C, 10s;

烙铁焊/Soldering Iron: 350°C, 5s.

## 8. 特性 / ELECTRICAL CHARACTERISTICS

### 8-1 熔断 / 电流特性-遵循 IEC60127-3, 规格单3: Pre-Arcing Time / Current Characteristic (limits)

| RATED<br>CURRENT | 2 IN/倍 | 2.75 IN/倍 |      | 4 IN/倍 |       | 10 IN/倍 |
|------------------|--------|-----------|------|--------|-------|---------|
|                  | Max.   | Min.      | Max. | Min.   | Max.  | Max.    |
| 100mA to 5A      | 30s    | 10ms      | 3s   | 3ms    | 300ms | 20ms    |



## 8-2 分断能力 / Breaking Capacity

|         |                 |                                 |
|---------|-----------------|---------------------------------|
| UL&C-UL | 100mA~5A        | 50A/250V AC                     |
| CQC&CCC | 500mA~5A        | 35A/50A/250V AC、>3.15A10 IN额定电流 |
| KC      | 1A、1.5A、2A、2.5A | 35A 250V AC/50A 125V AC         |

## 9.特性 / ENVIRONMENTAL CHARACTERISTIC

### 9-1 操作温度范围: -55℃~125℃ / Operating Temperature:-55℃~125℃

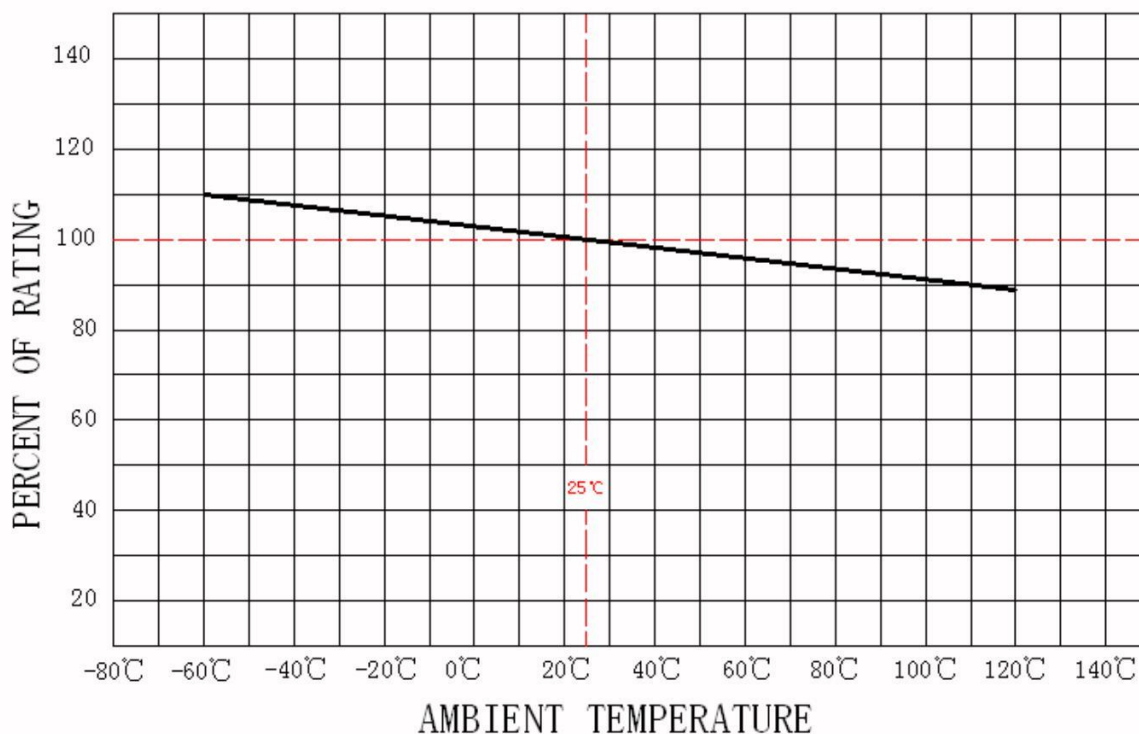
若贵司操作环境温度超出 $25\pm 5^{\circ}\text{C}$ 范围, 在选用保险丝规格时, 需考虑操作环境温度对保险丝的影响。

请参照: 温度-电流曲线图。

When choosing the fuse's specification, if the operating environmental temperature beyond the scope from  $20\sim 30^{\circ}\text{C}$ , you should consider the environmental temperature's affection to fuses.

Please refer:

Temperature-Current curve:



## 9-2 存储条件 / Storage Conditions

在温度+10℃~60℃、相对湿度 $\leq 75\%$ 的密闭条件下可存放 3 年。

Under aiRTight in temperature+10℃~60℃、relative humidity  $\leq 75\%$  can store 3 years.

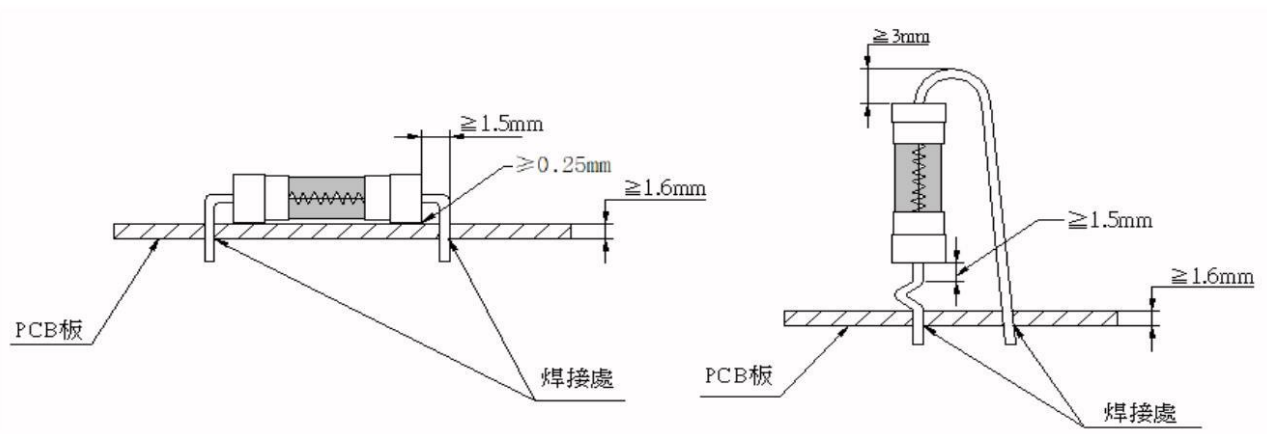
在温度相对湿度为 95%的非露天下最多可存放 30 天。

Without at dew relative humidity is 95% maximum value for 30days.

## 10. 安装方式及条件 / INSTALLATION WAY AND PARAMETERS

10-1 建议如下图安装方式安装，并满足所要求的尺寸。

Propose that the following picture installation way is installed, and satisfied the required size.



## 10-2 建议客户焊接参数 / Recommended Customer Soldering Parameters

波峰焊参数 / Wave Parameters:

锡炉温度 / Solder Pot Temperature:

260℃ Max

焊接时间 / Solder Dwell Time:

2~5s

手工焊参数 / Hand-Solder Parameters:

烙铁温度 / Solder Iron Temperature:

350±5℃

焊接时间 / Heating Time:

5 s Max

## 11.其他使用注意事项 / OTHER NOTICE IN USED

如果需在保险丝上加热缩套管，烘烤温度与时间需参照以下规定

If need to add heat draws back the sleeve pipe on the fuse , it needs to consult the following regulation to toast

temperature and time

| 温度<br>temperature | 120℃       | 130℃       | 140℃       | 150℃       | 160℃       | 170℃       | 180℃       |
|-------------------|------------|------------|------------|------------|------------|------------|------------|
| 时间/time           | Max<br>80s | Max<br>75s | Max<br>70s | Max<br>65s | Max<br>60s | Max<br>55s | Max<br>50s |

## 12.安全认证及编号 / STANDARDS AND APPROVALS

|         |                                            |
|---------|--------------------------------------------|
| UL      | E213695 (100mA~5A)                         |
| CQC     | CQC2019010207260540 (500mA、1A、2A、3.15A、5A) |
| CCC自我声明 | 2020970207000024 (500mA、1A、2A、3.15A、5A)    |
| KC      | JU05001-11001A (1A、1.5A、2A、2.5A)           |

## 13.包装 / PACKING

### 13-1 包装数量 / Packing Quantity

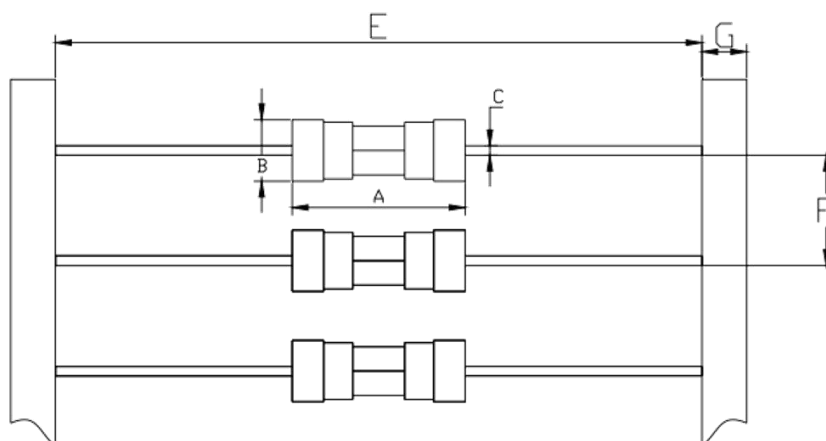
500PCS/小袋、10 小袋/内盒、10 内盒/外箱(实际装箱依客户订单)

500 fuses per plastic bag, 10 plastic bags per inner box, 10 inner boxes per external carton. (The actual case in accordance with the customer order)

### 13-2 编带包装尺寸图/ Taping Configuration

2000PCS/内盒、10 内盒/外箱(实际装箱依客户订单)。

2000 fuses per inner box, 10 inner boxes per external carton.  
(The actual case in accordance with the customer order)。



单位/Unit: mm

| A    | B       | C       | E    | F       | G       |
|------|---------|---------|------|---------|---------|
| 11±1 | 4.0±0.2 | 0.6±0.2 | 60±1 | 5.0±0.2 | 6.0±0.5 |

#### 14.其他 / OTHERS

14-1 如果在使用中有超出本规格书的要求，必须经由双方协商确认。

In the event that an impropriety is found beyond this specification, it shall be fixed by mutual agreement between the parties.

14-2 如果本规格书有不适当的情况，必须通过双方协商并由本公司修改。

In the event that an impropriety is found in this specification, LANBAO ELECTRICAL APPLIANCES CO. LTD. shall amend it by mutual agreement between the parties.

| 版次  | 制作                | 确认                | 审核                |
|-----|-------------------|-------------------|-------------------|
| 第一版 | 赖秋莲<br>2020/11/17 | 谢海林<br>2020/11/17 | 熊士军<br>2020/11/17 |



# UL iQ for Fuses



## Fuses

E213695

### Guide Information

## ZHONG SHAN LANBAO ELECTRICAL APPLIANCES CO LTD

West Xing Pu Rd, Huang Pu, Zhongshan Guangdong 528429 CN

### RFI-10

Supplemental micro fuses: pigtail leads

| <u>Size</u><br><u>mm(in)</u> | <u>Amps</u><br><u>(A)</u> | <u>Volts</u><br><u>(V)</u> | <u>Interrupting</u><br><u>Rating (A)</u> |
|------------------------------|---------------------------|----------------------------|------------------------------------------|
| 3.5 x 10 (0.14 x 0.39)       | 0.1 - 5.0                 | 250Vac                     | 50                                       |

Report Date: 2002-10-15

Last Revised: 2012-11-15

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# UL iQ for Fuses



Fuses

E213695

Guide Information

## ZHONG SHAN LANBAO ELECTRICAL APPLIANCES CO LTD

West Xing Pu Rd, Huang Pu, Zhongshan Guangdong 528429 CN

### 1F

Supplemental micro fuses: pigtail leads

| <u>Size</u><br><u>mm(in)</u> | <u>Amps</u><br><u>(A)</u> | <u>Volts</u><br><u>(V)</u> | <u>Interrupting</u><br><u>Rating (A)</u> |
|------------------------------|---------------------------|----------------------------|------------------------------------------|
| 3.5 x 10 (0.14 x 0.39)       | 0.1 - 5.0                 | 250Vac                     | 50                                       |

Report Date: 2002-10-15

Last Revised: 2012-11-15

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# 产品认证证书

证书编号: CQC2019010207260540

申请人名称及地址

中山市蓝宝电器有限公司  
中山市黄圃镇兴圃大道西 102 号之三

制造商名称及地址

中山市蓝宝电器有限公司  
中山市黄圃镇兴圃大道西 102 号之三

生产企业名称及地址

中山市蓝宝电器有限公司 (V002199)  
中山市黄圃镇兴圃大道西 102 号之三

产品名称和系列、规格、型号

超小型熔断体

RFI-10/1F F500mA L250V、RFI-10/1F F1AL250V、RFI-10/1F F2AL250V、RFI-10/1F F3.15AL250V、  
RFI-10/1F F5AL250V

产品标准和技术要求

GB/T9364.3-2018; GB/T9364.1-2015

认证模式

型式试验+初始工厂检查+获证后监督

上述产品符合 CQC11-462125-2018 认证规则的要求, 特发此证。

发证日期: 2020 年 07 月 12 日 有效期至: 2024 年 12 月 18 日

证书有效期内本证书的有效性依据发证机构的定期监督获得保持。

经中国合格评定国家认可委员会认可 CNAS C001-P

主任:

陆楠



## 中国质量认证中心

中国·北京·南四环西路 188 号 9 区 100070

<http://www.cqc.com.cn>

C 0326984





# PRODUCT CERTIFICATE

CERTIFICATE NO.: CQC2019010207260540

**NAME AND ADDRESS OF THE APPLICANT**

Zhongshan Lanbao Electrical Appliances Co.,Ltd.  
NO.102 3th XingPu Avenue west ,HuangPu Town,Zhongshan city

**NAME AND ADDRESS OF THE MANUFACTURER**

Zhongshan Lanbao Electrical Appliances Co.,Ltd.  
NO.102 3th XingPu Avenue west ,HuangPu Town,Zhongshan city

**NAME AND ADDRESS OF THE FACTORY**

Zhongshan Lanbao Electrical Appliances Co.,Ltd. (V002199)  
NO.102 3th XingPu Avenue west ,HuangPu Town,Zhongshan city

**PRODUCT NAME, MODEL AND SPECIFICATION**

Miniature current fuse

RFI-10/1F F500mAL250V、RFI-10/1F F1AL250V、RFI-10/1F F2AL250V、RFI-10/1F F3.15AL250V、RFI-10/1F F5AL250V

**THE STANDARDS AND TECHNICAL REQUIREMENTS FOR THE PRODUCTS**

GB/T9364.3-2018;GB/T9364.1-2015

**TYPE OF CERTIFICATION SCHEMES**

Type testing of product + initial factory inspection + follow up factory inspection

This is to certify that the above mentioned product(s) complies with the requirements of certification rules of CQC11-462125-2018 .

Valid from: Jul.12,2020

Valid until: Dec.18,2024

The validity of the certificate is subject to positive result of the regular follow up inspection by issuing certification body until the expiry date.

Accredited by China National Accreditation Service for Conformity Assessment CNAS C001-P

President:

Lu Mei



## CHINA QUALITY CERTIFICATION CENTRE

Section 9, No.188, Nanshuan Xilu, Beijing 100070 P.R.China  
<http://www.cqc.com.cn>

C 0326984



## 强制性认证产品符合性自我声明

自我声明编号: 2020970207000024



中山市蓝宝电器有限公司(生产者) 确认知晓《强制性产品认证自我声明实施规则》以及相关产品强制性认证实施规则的要求, 对本声明承担全部法律责任。

中山市蓝宝电器有限公司(生产者) 声明以下产品已按照《强制性产品认证自我声明实施规则》以及相关产品强制性认证实施规则的要求进行检测, 符合相关标准要求; 自本声明签署之日起, 生产和销售的产品持续符合以下标准与实施规则的要求; 保存本声明涉及的技术文档至少10年; 正确使用强制性产品认证标志; 如产品或其符合性信息发生变更, 将及时更新技术文档并报送产品变更信息。

生产者名称: 中山市蓝宝电器有限公司  
生产者地址: 广东省中山市黄圃镇兴圃大道西102号之三  
依据的强制性产品认证规则: CNCA-C02-01:2014 电路开关及保护或连接用电器装置(电器附件)  
产品名称: 超小型熔断体  
产品系列、型号、规格: (见附页)  
依据的标准: GB/T9364.3-2018; GB/T9364.1-2015  
生产企业名称: 中山市蓝宝电器有限公司  
生产企业地址: 中山市黄圃镇兴圃大道西102号之三

联系人: 熊士军  
电话: 0760-23226150  
电子邮箱: lanbaofuse@163.com  
指定签字人:

自我声明时间: 2020-04-14  
自我声明地点: 中山市

生产者签章:



注: 有关本声明信息真伪可登录全国认证认可信息公共服务平台(cx.cnca.cn)或扫描右上角二维码查询。



# 强制性认证产品符合性自我声明(附页)

自我声明编号: 2020970207000024



产品系列、型号、规格:

RFI-10/1F F500mAL250V、RFI-10/1F F1AL250V、RFI-10/1F F2AL250V、RFI-10/1F F3.15AL250V、RFI-10/1F F5AL250V

联系人:

熊士军

电话:

0760-23226150

电子邮箱:

lanbaofuse@163.com

指定签字人:

自我声明时间: 2020-04-14

自我声明地点: 中山市

生产者签章:



注: 有关本声明信息真伪可登录全国认证认可信息公共服务平台 (cx.cnca.cn) 或扫描右上角二维码查询。



접수번호(Order No.) : EKC2011-4866



## 전기용품 안전 인증서

### Electrical Appliances Safety Certificate

안전 인증 번호 : JU05001-11001A  
(Certificate No.)

제 조 업 자 명 : Zhongshan Lanbao Electrical Appliances Co.,Ltd  
(Manufacturer)

대 표 자 명 : Yang Han Bin  
(President)

제조공장의 소재지 : 102 Xin Pu Road Huang Pu, Zhongshan, Guangdong China  
(Factory Address)

제 품 명 : 소형퓨즈(초소형퓨즈링크)  
(Product) (Miniature fuse(Cartridge fuse-links))

기 본 모 델 명 : 31N 125V 2A  
(Basic Model)

정 격 : 125 V~, 2 A, 50 A  
(Rating)

파 생 모 델 명 : 31N 125V 1A, 31N 125V 1.5A, 31N 125V 2.5A, RFI-10 125V 1A,  
(Series Model) RFI-10 125V 1.5A, RFI-10 125V 2A, RFI-10 125V 2.5A

적 용 기 준 : K60127-3(2006-07), K60127-1(2008-12)  
(Standard)

「전기용품안전 관리법 시행규칙」 제6조제2항의 규정에 따라 위의 전기용품에 대하여 안전 인증서를 교부합니다.

We Issue Electrical Appliances Safety Certification as above product by Article 6 Section 2 of the Electrical Appliances Safety Control Enforcement Regulation.

2011년 11월 21일  
year month day



한국화학융합시험연구원

(KOREA TESTING & RESEARCH INSTITUTE)



이 인증서는 「전기용품안전관리법」에 따른 전기용품안전성 확인에 한정된 것이며 그 밖의 다른 법률이 적용되는 제품의 경우에는 해당법률에 따라 추가로 인증·허가 등을 받아야 합니다.

- 첨부서류 (Annex)
1. 안전관리부품 및 재질목록(List of Critical Components)
  2. 기본모델·파생모델의 내용(General Descriptions of Certified Products)
  3. 전기용품안전인증의 변경 현황(Status of Certificate Revisions)
  4. 표시사항 및 주의 또는 경고문구(Marking plate and caution or warning)
  5. 제품사진(Product photograph)



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[Attachment 1 : List of Critical Components]

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| Component/<br>part No. | Manufacturer/<br>trademark          | Model/type | Technical data                                | Mark(s) of<br>conformity |
|------------------------|-------------------------------------|------------|-----------------------------------------------|--------------------------|
| Fusible Material       | Daemyung Tong Shin Co.,<br>Ltd      | -          | BAG1 ~ BAG1<br>(Tungsten)                     | -                        |
| Tube Type<br>Terminal  | Samju Co., Ltd                      | -          | KS D5201<br>C2680R-0                          | -                        |
| Tube                   | DooWon Ceramic Co., Ltd             | -          | DW-700<br>Al <sub>2</sub> O <sub>3</sub> 70 % | -                        |
| Solder                 | Shinil Metal Technology Co.,<br>Ltd | -          | Sn : 40 %<br>Pb : 60 %                        | -                        |
| Lead wire              | Seungwoo Industrial Co., Ltd        | -          | 0.7 Ø<br>30 mm                                | -                        |

※ Attention

1. As the critical components and parts are directly related with safety, these components shall be checked during a factory inspection by the certification body. In case of applying for multiple listings or changes for the items above, the certification revision shall be applied.
2. The safety certification will be cancelled under the Electrical Appliance Safety Control Law, Clause 1 of Article 8 if the contents of the certification are altered without prior authorization.
3. Handling criteria for non-conforming electrical appliance
  - 1) Added in new items and test items for conventional track shall be subject to existing similar items
  - 2) In case of the products without the validation process by a safety certification body and randomly missing paths such as adding and changing some components, unlike a safety certificate or a registration for the self-regulatory safety confirmation and other related regulations shall apply most serious level of defect)



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[Attachment 2 : General Description of Certified Products]

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| Series model(s)  | Difference between the basic and variant models                                                                        | Remarks |
|------------------|------------------------------------------------------------------------------------------------------------------------|---------|
| 31N 125V 1A      | o Different rated current from basic model (125 V, 1 A, 50 A)                                                          |         |
| 31N 125V 1.5A    | o Different rated current from basic model (125 V~, 1.5 A, 50 A)                                                       |         |
| 31N 125V 2.5A    | o Different rated current from basic model (125 V~, 2.5 A, 50 A)                                                       |         |
| RFI-10 125V 1A   | o Electric circuit and structure are the same as basic model's one and only add model based on the difference of buyer |         |
| RFI-10 125V 1.5A | o Electric circuit and structure are the same as basic model's one and only add model based on the difference of buyer |         |
| RFI-10 125V 2A   | o Electric circuit and structure are the same as basic model's one and only add model based on the difference of buyer |         |
| RFI-10 125V 2.5A | o Electric circuit and structure are the same as basic model's one and only add model based on the difference of buyer |         |

Features and Specifications

o Features and Specifications

- Usage : It is used to protect overcurrent for electric appliances
- Inner structure : Comprised of solder, fusible material in ceramic case
- Outer structure : It is fixed to PCB

※ If you have questions on product testing contents, please contact the following

- Division of Conformity Testing
- Tel : 82-31-679-9600 Fax : 82-31-336-2427



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[Attachment 3 : Status of Compliance Certificate Revision]

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| Date         | Content of revision                                                                            | Reference |
|--------------|------------------------------------------------------------------------------------------------|-----------|
| 2011. 5. 19  | o Date of Initial Issue                                                                        |           |
| 2011. 11. 21 | o Series models are added.<br>(125V 1A, RFI-10 125V 1.5A, RFI-10 125V 2A,<br>RFI-10 125V 2.5A) |           |



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[붙임 4 : 표시사항 및 주의 또는 경고문구]

[Attachment 4 : Marking plate and caution or warning]

표시사항  
(marking plate)

전기용품안전관리법에의한표시



KTR JU05001-11001A

제품명 : 소형퓨즈(초소형퓨즈링크)

모델명 : 31N 125V 2A

정격전압 : 125 V

정격전류 : 2 A

정격차단전류 : 50 A

제조사명 : Zhongshan Lanbao Electrical Appliances Co.,Ltd

판매원 : 동우LB휴즈

제조년월 : 2011년 월 일

A/S 전화번호 : 032-555-0033