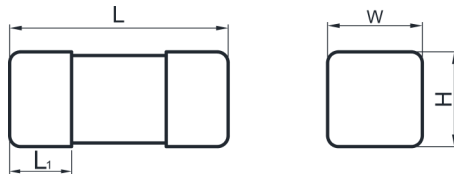


# 贴片熔断体

Surface Mount Fuse-links (SMFL)

SCF6125系列 Series, 快断 Fast Acting, 陶瓷管 Ceramic Tube

## 尺寸 Dimensions (mm)



L	L <sub>1</sub>	w	H
6.3 ± 0.3	1.7 ± 0.2	2.70 ± 0.25	2.70 ± 0.25

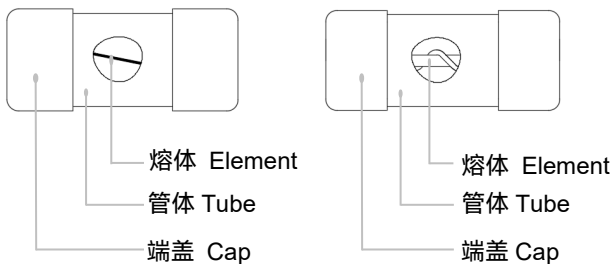
## 关键特性 Key Features

- 快断 Fast Acting
- SMD 保险丝 Fuse
- 执行标准: IEC 60127-7、UL248-14  
Designed to IEC 60127-7, UL248-14
- 无铅 Lead-free (Pb-free)
- 环保型产品 RoHS & REACH Compliant

## 应用 Applications

- 电源 Power Supply
- 家电 Household Appliance
- 通用照明 General Lighting
- 智能家居 Smart Home
- 办公设备 Office Equipment
- 电动工具 Electric Tool
- 家庭娱乐设备 Home Entertainment Equipment
- 医疗设备 Medical Equipment
- 仪器仪表 Instruments and Apparatuses

## 结构图 Structure



## 型号说明 Product Number System

SCF6125F1.6A250V



## 安规认证 Agency Approvals

安规认证 Agency Approvals	认证号 Agency File Number	电流范围 Ampere Range
	E345932	0.5 A ~ 20 A
	待定 Pending	0.5 A ~ 20 A
	待定 Pending	0.5 A ~ 20 A

术语 Glossary

项目 Item	描述 Description
熔断器 Fuse	<p>一种装置，当通过该装置的电流超过规定值，并持续足够的时间，该装置中一个或多个经特殊设计、特殊配比的部件熔断，断开其所接入的电路，从而切断电流。</p> <p>A device, by the fusing of one or more of its specially designed and proportioned components, opens the circuit in which it is inserted by breaking the current when this exceeds a given value for a sufficient time.</p> <p>—(IEC 60127)</p>
额定电流 Rated Current	<p>熔断器的额定电流是根据其可控制测试条件的截流能力确定的。每个熔断器上都应标上额定电流，它可以是数字、字母、或色码。</p> <p>The rated current of a fuse identifies its current-carrying capacity based on a controllable set of test conditions. Each fuse is marked with its rated current, this rating can be identified with a numeric, alpha, or color code mark.</p> <p>—(IEC 60127)</p>
额定电压 Rated Voltage	<p>熔断器可以使用的最大安全开断电压，超过额定电压将影响断开过载和短路电路的能力。</p> <p>A Max. open circuit voltage in which a fuse can be used, yet safely interrupt an overcurrent. Exceeding the voltage rating of a fuse impairs its ability to clear an overload or short circuit safely.</p> <p>—(IEC 60127)</p>
标称熔化热能 Ampere Squared Seconds $I^2t$	<p>在电流平方对给定时间间隔的积分，被称为<math>I^2t</math>。它是熔断所需的热能。熔断<math>I^2t</math>可以是熔化<math>I^2t</math>，飞弧<math>I^2t</math>，或二者之和。</p> <p>The melting, arcing, or clearing integral of a fuse, termed <math>I^2t</math>, is the thermal energy required to melt, arc, or clear a specific current. It can be expressed as melting <math>I^2t</math>, arcing <math>I^2t</math> or the sum of them, clearing <math>I^2t</math>.</p> <p>—(IEC 60127)</p>
过载 Overload	<p>电流超过额定负荷的2到5倍，且保持正常的电流路径。</p> <p>Can be classified as an overcurrent which exceeds the normal full load current of a circuit by 2 to 5 times its magnitude and stays within the normal current path.</p> <p>—(UL 248)</p>
过电流 Overcurrent	<p>在一个电路中，超过正常负载电流的电流称为过电流。过电流包括过载电流和短路电流。</p> <p>A condition which exists in an electrical circuit when the normal load current is exceeded. Overcurrent take on two separate characteristics-overloads and short circuits.</p> <p>—(UL 248)</p>
短路 Short Circuit	<p>将短路是电流不流过正常电路而引起的过电流，它大大超出了正常满载电流数十、数百甚至数千倍。</p> <p>An overcurrent that leaves the normal current path and greatly exceeds the normal full load current of the circuit by a factor of tens, hundreds, or thousands times.</p> <p>—(UL 248)</p>
分断能力 Breaking Capacity of a Fuse-link	<p>在规定的使用和性能条件下，熔断器在规定电压下能分断的预期电流值（对交流为有效值）。</p> <p>Value (r.m.s. for AC) of prospective current that a fuse-link is capable of breaking at a stated voltage under prescribed conditions of use and behaviour.</p> <p>—(IEC 60127)</p>

Miniature Fuses

Miniature Fuses

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## 技术参数 Specifications

系列 Series	额定电流 Rated Current	额定分断能力 Rated Breaking Capacity	平均熔化热能值 Average Typical Melting $I^2t^a$	安规认证 Agency Approvals			环境 Environmental	
	(A)		(A <sup>2</sup> sec)	 TUV	 CQC	 UL/CUL	RoHS	REACH
SCF6125	0.5	50 A@250 VAC 200 A@125 VAC 200 A@125 VDC 500 A@75 VDC / 63 VDC / 48 VDC / 32 VDC / 24 VDC	0.25	○	○	●	●	●
SCF6125	0.63		0.32	○	○	●	●	●
SCF6125	0.8		0.77	○	○	●	●	●
SCF6125	1		0.8	○	○	●	●	●
SCF6125	1.25		0.78	○	○	●	●	●
SCF6125	1.6		1.28	○	○	●	●	●
SCF6125	2		3.2	○	○	●	●	●
SCF6125	2.5		0.85	○	○	●	●	●
SCF6125	3		0.9			●	●	●
SCF6125	3.15		1.1	○	○	●	●	●
SCF6125	4		4.5	○	○	●	●	●
SCF6125	5		6.3	○	○	●	●	●
SCF6125	6.3		12.4	○	○	●	●	●
SCF6125	8		19.2	○	○	●	●	●
SCF6125	10		40	○	○	●	●	●
SCF6125	12.5		75	○	○	●	●	●
SCF6125	15		90			●	●	●
SCF6125	16		102	○	○	●	●	●
SCF6125	20		240	○	○	●	●	●

a:  $I^2t$ 是在10倍额定电流测试下得到的。 $I^2t$  value is measured at  $10 I_N$ . ○: 待定 Pending

## 熔断特性 Pre-arcing Time/Current Characteristic

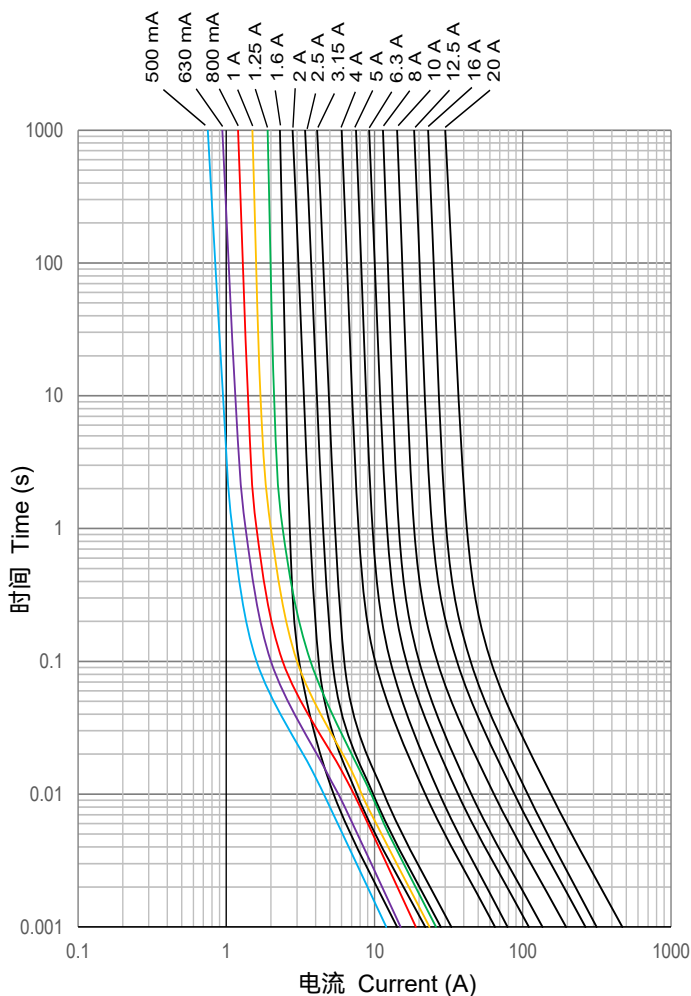
额定电流 Rated Current	1.0 $I_N$	2.0 $I_N$	10 $I_N$
	最小 Min.	最大 Max.	最大 Max.
0.5 A ~ 20 A	4 h	5 s	10 ms

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## 时间电流特性曲线 Time Current Curve (仅供参考 For Reference Only)

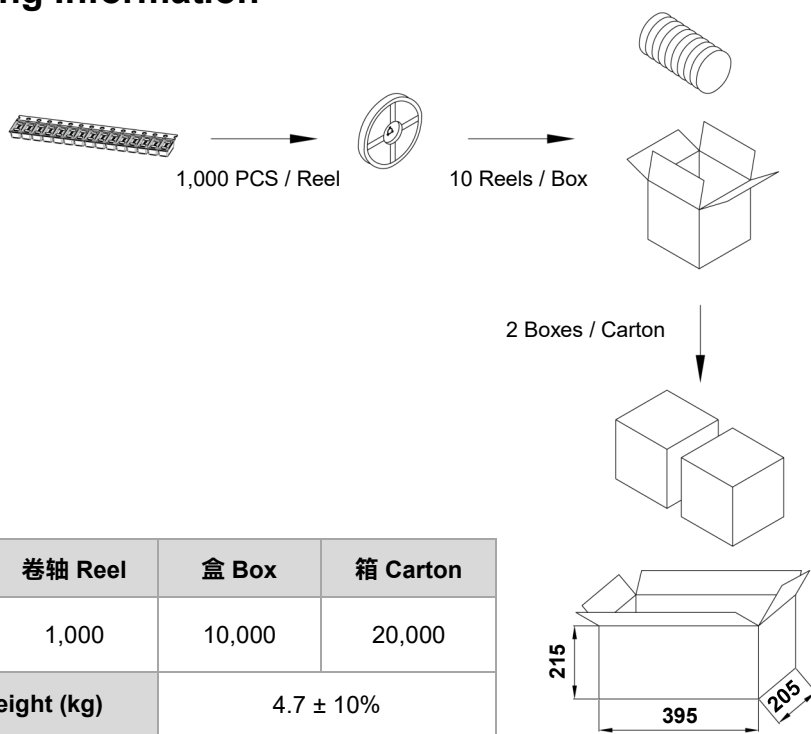


Miniature Fuses

Miniature Fuses

## 包装信息 Packaging Information

尺寸 Dimensions (mm)



项目 Item	卷轴 Reel	盒 Box	箱 Carton
数量 Q'ty (PCS)	1,000	10,000	20,000
毛重 Gross Weight (kg)	4.7 ± 10%		



# 注意

## ATTENTION

### 检测 Inspection

#### 冷电阻测试 Cold Resistance Test

- 环境温度为 $(23\pm 2)$  °C，测试电流不大于熔断器额定电流的10%。  
Applied current shall be less than 10% of rated current, at ambient Temp. of  $(23\pm 2)$  °C.
- 采用四端测试法 (4-Wire) Resistance Measurement.

### 使用 Usage

- 通电情况下请勿直接接触熔断器本体或引线，防止烫伤或触电。  
Do not touch the fuse body or lead wire when power on, avoiding scald or electric shock.
- 气压在80 kPa 到106 kPa，对应海拔为+2000 m至- 500 m。  
Air pressure is 80 kPa to 106 kPa. These values represent an altitude of +2000 m to -500 m, respectively.

### 更换 Replacement

基于安全原因，熔断器是不可修复的产品，替换时应使用同类别同型号的产品。

For safety reasons, the Fuse is the non-resettable product, please ensure that the alternative Fuse is the same type when replace it.

### 贮存 Storage

熔断器的贮存应避免高温、高湿、日光直射和腐蚀性气体的场合，以免影响引脚可焊性，产品购入后请于1年内使用完毕。

Please store the fuse in the environment without high temperature, high humidity or corrosive gas, to avoid reducing the solderability of the lead wire. Please use them up within 1 year after receiving the goods.

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## 安装 Installation

### 机械应力 Mechanical stress

安装过程和安装后不宜对熔断器本体施加机械应力。

Do not apply mechanical stress to the fuse body during or after the installation.

## 焊接参数 Soldering Parameters

波峰焊参数 Wave soldering Parameters (仅供参考 For Reference Only)

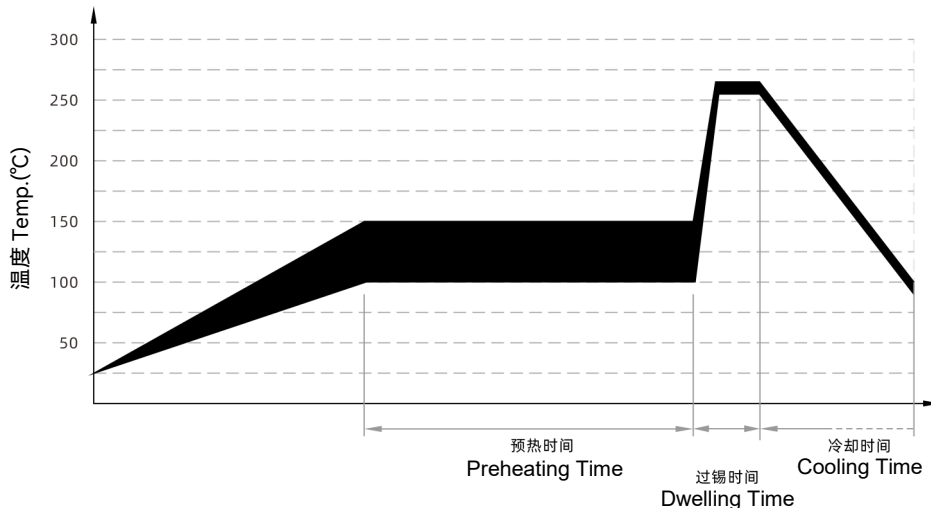


表3 TABLE 3

项目 Item	温度 Temp. (°C)	时间 Time (s)
预热 Preheating	100 - 150	60 - 180
过锡 Dwelling	255 - 265	4 - 8

### 推荐的手工焊参数 Recommended Soldering Parameters

烙铁温度 Solder Iron Temp.:  $(350 \pm 5) ^\circ\text{C}$

焊接时间 Soldering Time:  $\leq 5 \text{ s}$

## 安装位置 Installation Position

勿将熔断器安装在可能经常出现剧烈振动的位置。

Do not install the fuse on a location that may often subject to severe continuous vibration.