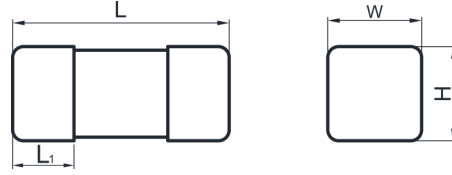


Miniature Fuses (Surface Mount Fuse-links)

SCF6125 Series, Fast Acting, Ceramic Tube



Dimensions (mm)



L	L ₁	w	H
6.3 ± 0.3	1.7 ± 0.2	2.70 ± 0.25	2.70 ± 0.25

Description

2.7 × 2.7 × 6.3 mm, Fast Acting, SMD fuse, designed to IEC & UL standards.

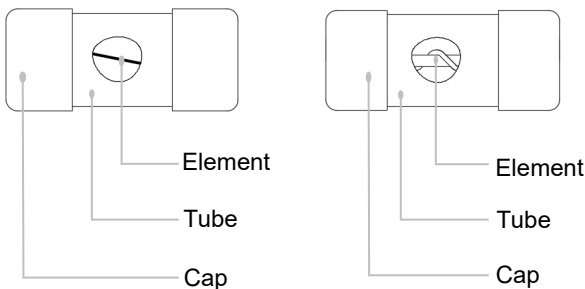
Features

- 2.7 × 2.7 × 6.3 mm
- Fast Acting
- Designed to IEC 60127-7 / UL248-14
- Lead-free (Pb-free)
- RoHS & REACH Compliant

Applications

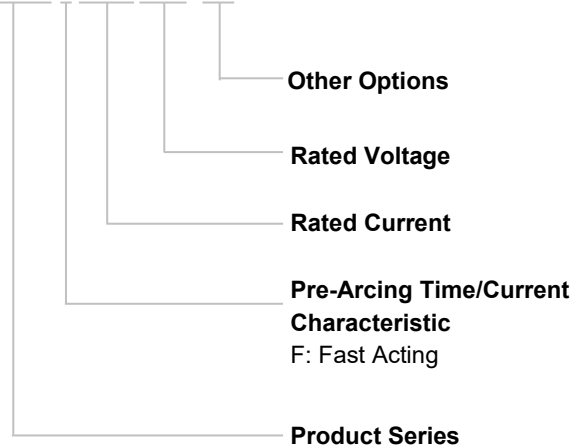
- Power Supply
- Household Appliance
- General Lighting
- Smart Home
- Office Equipment
- Electric Tool
- Medical Equipment
- Instruments and Apparatuses

Structure Diagram



Part Numbering System

SCF6125F3.15A250V-001



Agency Approvals

Agency Approvals	Agency File Number	Ampere Range (A)
	E345932	0.5 to 20
	Pending	0.5 to 20
	Pending	0.5 to 20

Miniature Fuses

Miniature Fuses

Glossary

Item	Description
Fuse	An overcurrent protective device with a fusible link that operates and permanently opens the circuit on an overcurrent condition.
Rated Current	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.
Rated Voltage	A maximum open circuit voltage in which a fuse can be used, yet safely interrupt an over-current. Exceeding the voltage rating of a fuse impairs its ability to clear an overload or short circuit safely.
Ampere Squared Seconds I^2t	The melting, arcing, or clearing integral of a fuse, termed I^2t , is the thermal energy required to melt, arc, or clear a specific current. It can be expressed as melting I^2t , arcing I^2t or the sum of them, clearing I^2t .
Time-current Characteristics	Under stated conditions of operation, the value of time as a function of the prospective current.
Rated Breaking Capacity	Value (r.m.s. for a.c.) of prospective current that a fuse-link is capable of breaking at a stated voltage under prescribed conditions of use and behaviour.




Miniature Fuses

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Specifications

Series	Rated Current	Rated Breaking Capacity	Average Typical Melting I^2t^a	Agency Approvals			Environmental	
	(A)			 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 value is measured at $10 I_N$.

○: Pending

Miniature Fuses

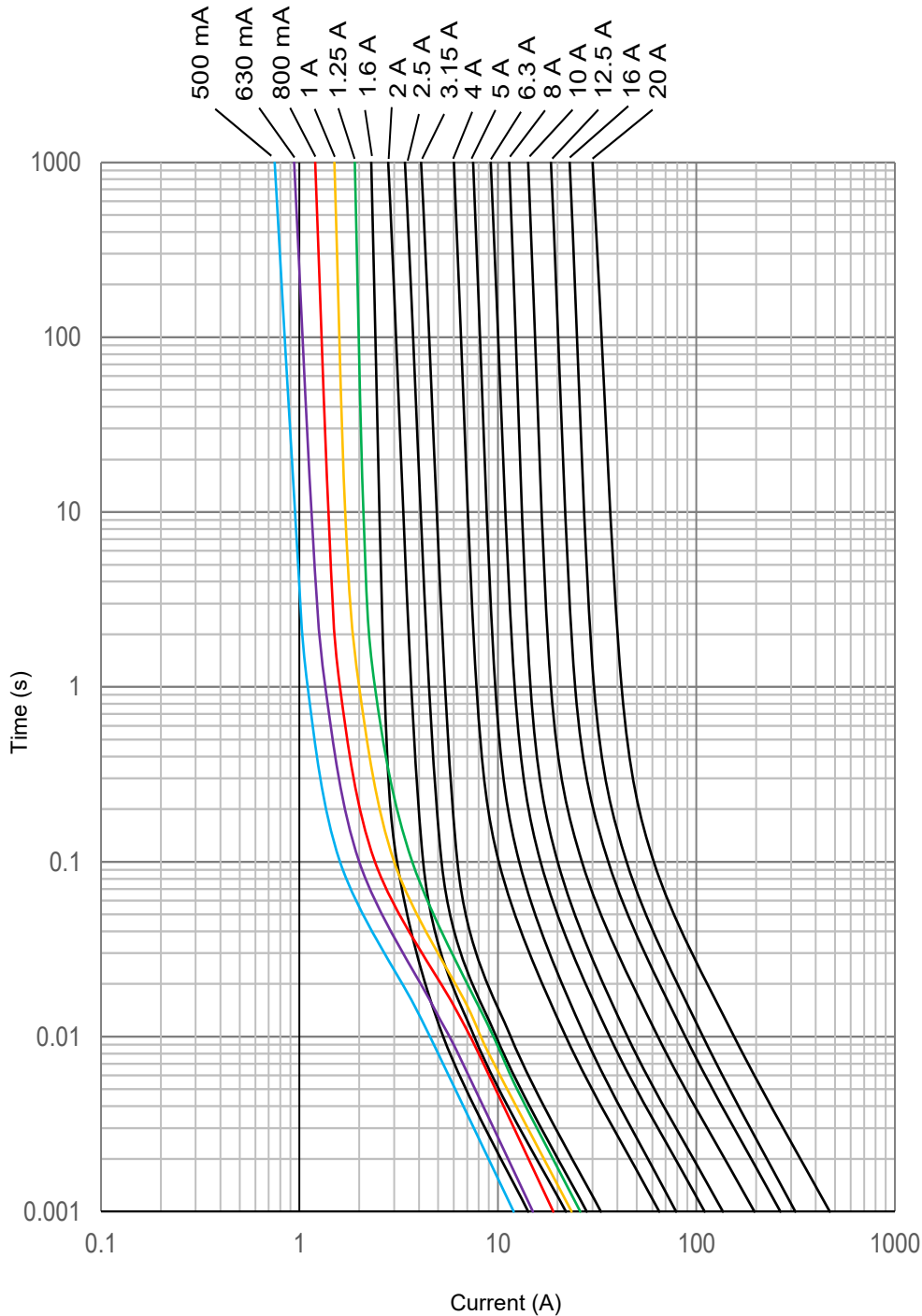
(Surface Mount Fuse-links)

SCF6125 Series, Fast Acting, Ceramic Tube

Opening Time / Current Characteristic

Rated Current (A)	1.0 I _N	2.0 I _N	10 I _N
	Min.	Max.	Max.
0.5 to 20	4 Hours	5 Seconds	10 ms

Time Current Curve (For Reference Only)



Miniature Fuses

Miniature Fuses

Reliability Test

No.	Items	Inspection Standards	Standards
1	High Temp. Test	<p>Test Condition: Temperature: (105 ± 2) °C Time: 1000 hours</p> <p>Test Requirement: After the test, the voltage drop shall not have changed by more than 10% of the value measured before the test. The clearing time of the fuse shall be in range.</p>	<p>MIL-STD-202(Test Method 108) GJB360B(Test Method 108)</p>
2	High Humidity Test	<p>Test Condition: Temperature: (40 ± 2) °C Humidity: 90% to 95% Time: 96 hours</p> <p>Test Requirement: After the test, the voltage drop shall not have changed by more than 10 % of the value measured before the test. The clearing time of the fuse shall be in range.</p>	<p>MIL-STD-202(Test Method 103) GJB360B(Test Method 103)</p>
3	Thermal Shock Test	<p>Test Condition: Per Cycle: -40 °C / 30 minutes, 85 °C / 30 minutes Time: 10 Cycles</p> <p>Test Requirement: After the test, the voltage drop shall not have changed by more than 10 % of the value measured before the test. The clearing time of the fuse shall be in range.</p>	<p>MIL-STD-202(Test Method 107) GJB360B(Test Method 107)</p>

Miniature Fuses

Miniature Fuses

Miniature Fuses (Surface Mount Fuse-links)

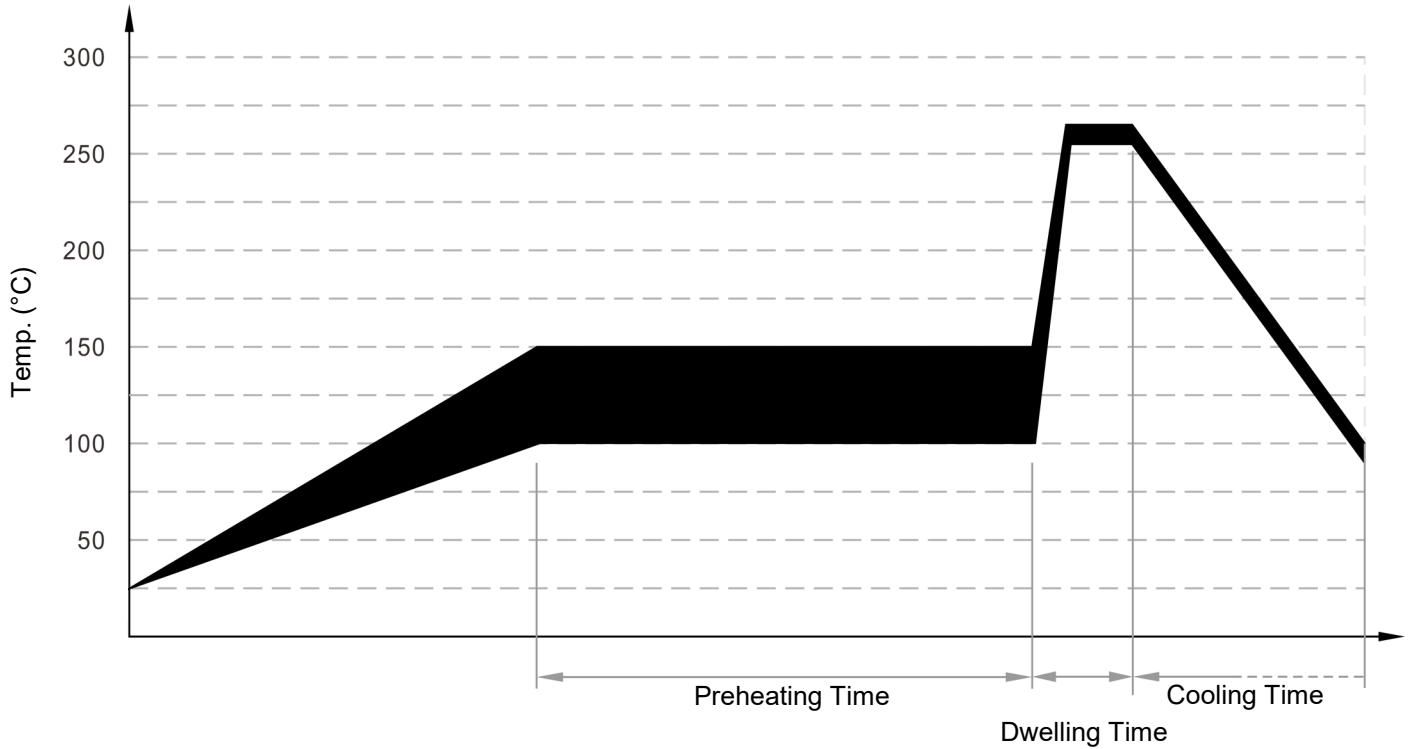
SCF6125 Series, Fast Acting, Ceramic Tube

Installation

Mechanical stress

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

Wave soldering Parameters (For Reference Only)



Item	Temp. (°C)	Time (s)
Preheating	100 to 150	60 to 180
Dwelling	260 ± 5	2 to 5

Recommended Hand-Soldering Parameters

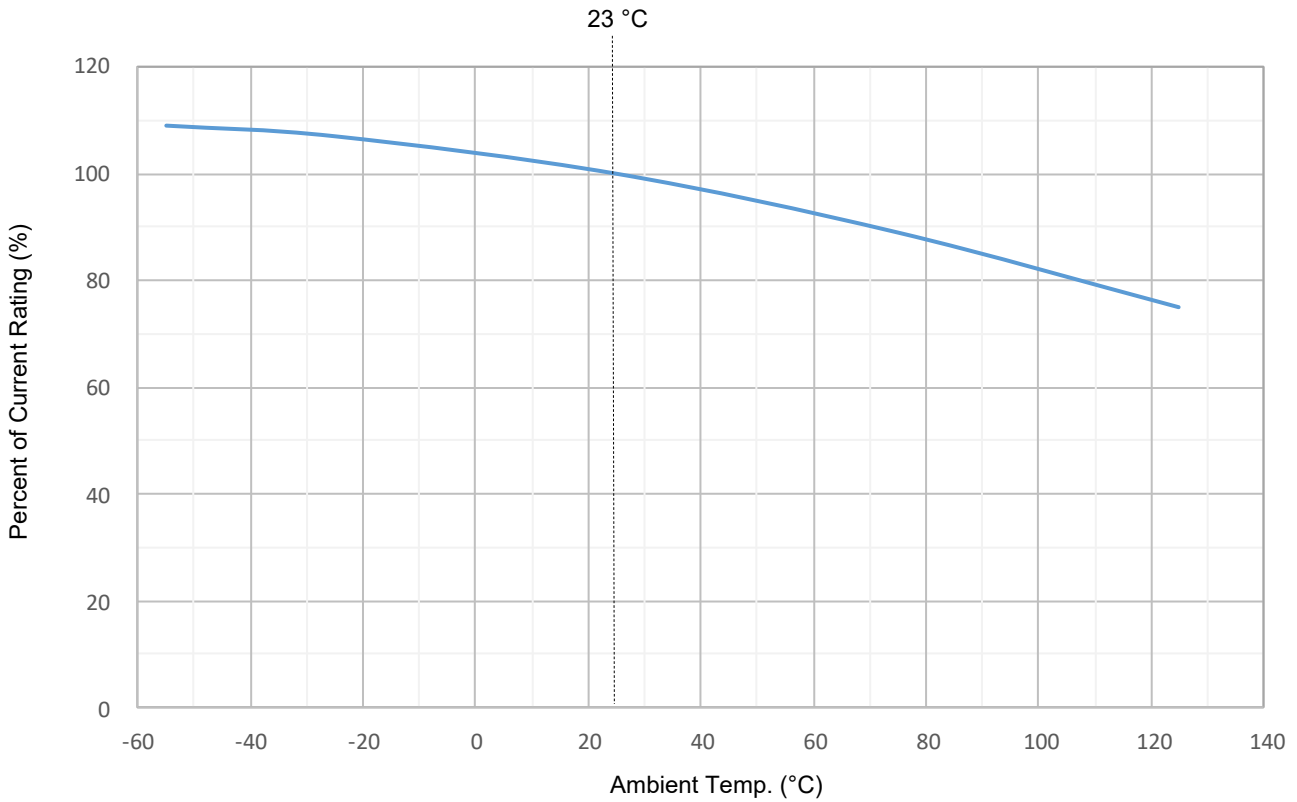
Solder Iron Temp.: (350 ± 5) °C

Heating Time: 5 seconds Max.

Miniature Fuses (Surface Mount Fuse-links)

SCF6125 Series, Fast Acting, Ceramic Tube

Temperature Derating Curve

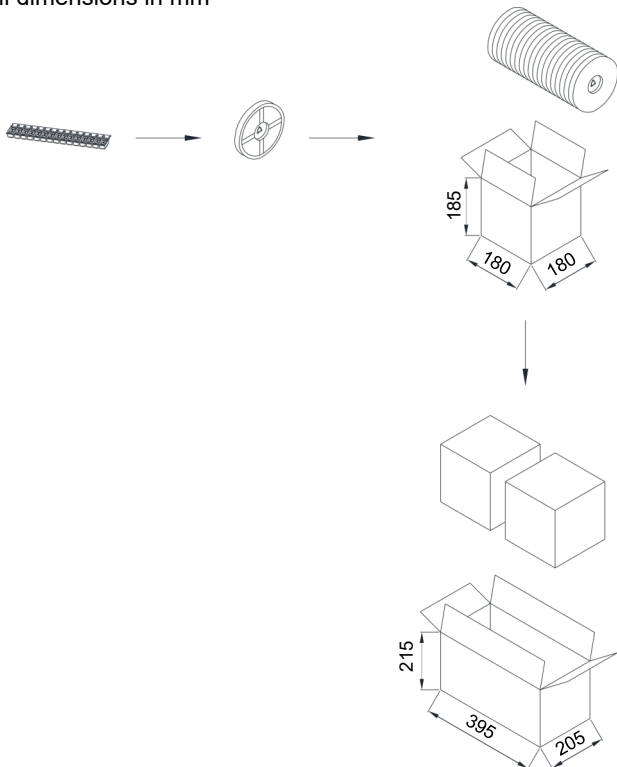


Miniature Fuses

Miniature Fuses

Packaging Information

All dimensions in mm



Item	Reel	Box	Carton
Quantity (PCS)	1,000	10,000	20,000
Gross Weight (kg)	4.7 × (1±10%)		



ATTENTION

Inspection

Cold Resistance Test

- a. Applied current shall be less than 10% of rated current, at ambient Temp. of (23 ± 2) °C.
- b. (4-Wire) Resistance Measurement.

Usage

- a. Do not touch the fuse body or lead wire when power on, avoiding scald or electric shock.
- b. Air pressure is 80 kPa to 106 kPa. These values represent an altitude of +2000 m to -500 m, respectively.

Replacement

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

Storage

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.