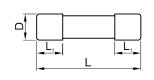
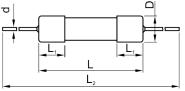


SCF520(P) Series, Fast Acting Ceramic Tube



Dimensions (mm)





L	L ₁	L ₂	D	d
20.0 ± 0.5	5.1 ± 0.3	96 ± 2	Ф5.2 ^{+0.1} _{-0.2}	≤6.3 A: Φ(0.65 ± 0.05) >6.3 A to 10 A: Φ(0.80 ± 0.05) >10 A to 20 A: Φ(1.00 ± 0.05) 25 A: Φ(1.20 ± 0.05)

Description

 Φ 5 × 20 mm, Fast Acting, high breaking capacity cartridge fuse, designed to IEC, GB/T and UL standards.

Key Features

- Body Size: Φ5 × 20 mm
- Fast Acting
- High Breaking Capacity
- Ceramic Tube, Nickel-plated Brass End Cap Construction
- Designed to UL248-14 / IEC 60127-7 / GB/T 9364.7
- Lead-free (Pb-free)
- RoHS and REACH Compliant

Applications

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

Time/Current Characteristic

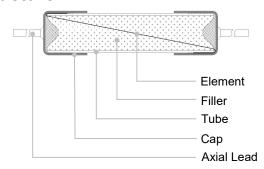
% of Ampere Rating	Ampere Rating	Opening Time
210%	0.4 A ~ 25 A	30 minutes, Max.
275%	0.4 A ~ 25 A	0.04 s ~ 20 s
400%	0.4 A ~ 25 A	0.01 s ~ 10 s
1000%	0.4 A ~ 10 A	0.03 s, Max.
1000%	12 A ~ 25 A	0.08 s, Max.

Product Number System



SCF520: Cartridge Type SCF520P: Axial Lead Type

Structure



Agency Approvals

Agency Symbol	Agency Symbol The file No. and certification No. obtained by SETsafe SETfuse		
c FL ®us	E345932	0.5 A ~ 25 A	
	CQC21012313736		
	CQC21012313738		
	CQC21012317022		
Cec	CQC21012317866	0.4 A ~ 20 A	
	CQC21012319112	0.4 A ~ 20 A	
	CQC21012320077		
	CQC21012322189		
	CQC21012322191		
A	R50541719	1 A ~ 20 A	

SCF520(P) Series, Fast Acting Ceramic Tube

Specifications

	Rated		Average Typical	Age	ncy Approv	/als	Enviro	nmental
Series	Current	Rated Breaking Capacity	Melting I ² t ^a	Cec	A	c FL °us	RoHS	REACH
	(A)		(A²sec)	CQC	TUV	cURus		
SCF520(P)	0.4		0.06	•	0	0	•	•
SCF520(P)	0.5		0.14	•	0	•	•	•
SCF520(P)	0.63		0.23	•	0	•	•	•
SCF520(P)	0.8		0.4	•	0	•	•	•
SCF520(P)	1		0.6	•	•	•	•	•
SCF520(P)	1.25		1.0	•	•	•	•	•
SCF520(P)	1.6		1.4	•	•	•	•	•
SCF520(P)	2	UL (0.5 A-10 A):	3.8	•	•	•	•	•
SCF520(P)	2.5	1500 A@300 VAC	4.8	•	•	•	•	•
SCF520(P)	3.15	300 A@500 VAC / DC	8.5	•	•	•	•	•
SCF520(P)	4	UL (12 A-25 A): 1500 A@300 VAC	17	•	•	•	•	•
SCF520(P)	5	300 A@500 VAC	34	•	•	•	•	•
SCF520(P)	6.3	300 A@420 VDC	65	•	•	•	•	•
SCF520(P)	8		114	•	•	•	•	•
SCF520(P)	10		240	•	•	•	•	•
SCF520(P)	12.5	_	310	•	•	•	•	•
SCF520(P)	15		320	0	0	•	•	•
SCF520(P)	16		480	•	•	•	•	•
SCF520(P)	20		1250	•	•	•	•	•
SCF520(P)	25		2000	0	0	•	•	•

Remark:

- a: l^2t value is measured at 10 I_N.
- o: Pending, RoHS and REACH Compliant

Breaking Capacity (CQC/TUV):

SCF520 (0.4 A / 0.5 A / 0.63 A / 1 A / 1.6 A / 2 A / 2.5 A / 3.15 A / 5 A): 5000 A@250 VAC /DC, 300 A@600 VAC / DC, 3000 A@300 VAC SCF520 (0.8 A / 1.25 A / 4 A / 6.3 A / 12.5 A / 16 A): 5000 A@250 VAC / DC, 300 A@600 VDC, 3000 A@300 VAC, 200 A@500 VAC SCF520 (10 A): 5000 A@250 VAC / DC, 3000 A@500 VAC / DC, 3000 A@300 VAC

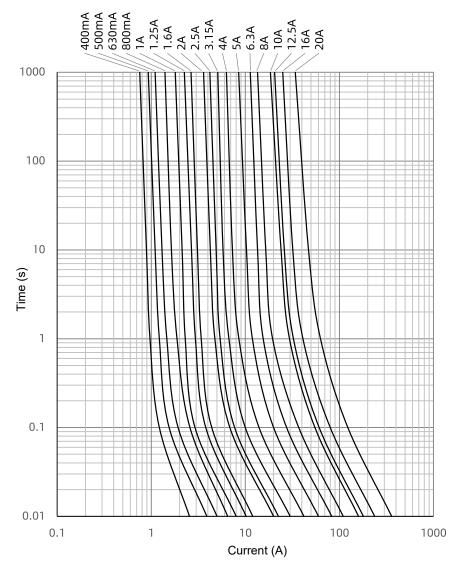
SCF520 (20 A): 5000 A@250 VDC, 200 A@350VAC

SCF520P (0.4 A / 0.8 A / 1 A / 4 A / 5 A / 6.3 A / 8 A / 10 A): 5000 A@250 VAC / DC, 300 A@600 VDC, 3000 A@300 VAC, 300 A@500 VAC SCF520P (0.5 A / 0.63 A / 1.25 A / 1.6 A / 2 A / 2.5 A / 3.15 A): 5000 A@250 VAC / DC, 300 A@600 VAC / DC, 3000 A@300 VAC

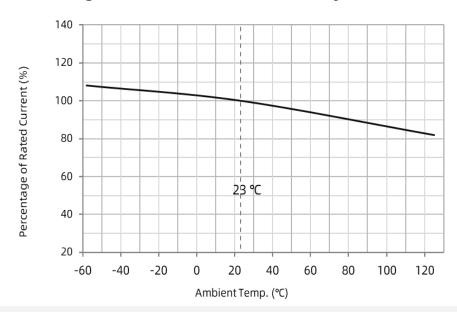
SCF520P (12.5 A / 16 A): 5000 A@250 VAC / DC, 300 A@600 VDC, 3000 A@300 VAC, 200 A@420 VAC

SCF520P (20 A): 5000 A@250 VDC, 200 A@350VAC

Time Current Curve (For Reference Only)

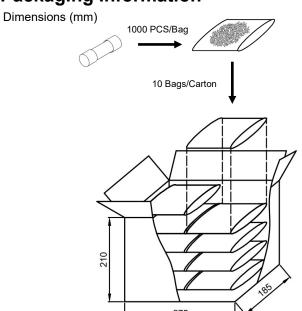


Rated Current Derating Curve (For Reference Only)

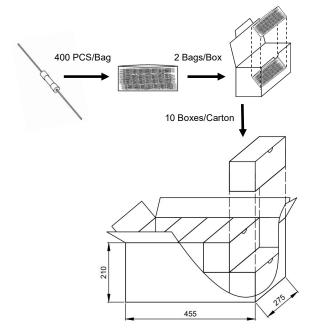


SCF520(P) Series, Fast Acting Ceramic Tube

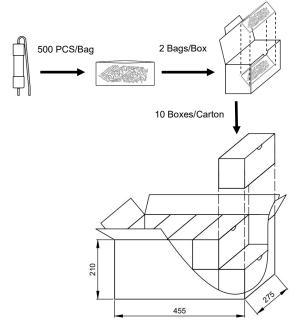
Packaging Information



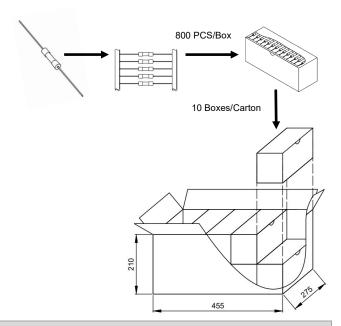
Cartridge Type				
Item PE Bag Carton				
Q'ty (PCS)	1,000	10,000		
Gross Weight (kg)		13.5×(1±10%)		



Axial Lead Type					
Item PE Bag Box Carton					
Q'ty (PCS)	400	800	8,000		
Gross Wei	Gross Weight (kg)		I±10%)		



Bending Molding Type (Vertical or Horizontal)					
Item	PE Bag Box Carton				
Q'ty (PCS)	500	1,000	10,000		
Gross Weight (kg)		14.8×(1	I±10%)		



Taping Type				
Item		Carton		
Q'ty (PCS)	800		8,000	
Gross Wei	ght (kg)	14.5×(1±10%)		



SCF520(P) Series, Fast Acting Ceramic Tube



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. The air pressure is 80 kPa to 106 kPa, corresponding to the altitude of +2000 m to -500 m.

Replacement

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

Storage

Fuse storage should avoid high temperature, high humidity, direct sunlight, and corrosive gases, so as not to affect the solderability of the lead wire. Please use them up within 1 year after receiving the goods.

Installation

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

Installation Position

Do not install the fuse on an assembly that may often subject to severe continuous vibration or with corrosive gases (NH_3 , SO_2 , Cl_2 etc.).

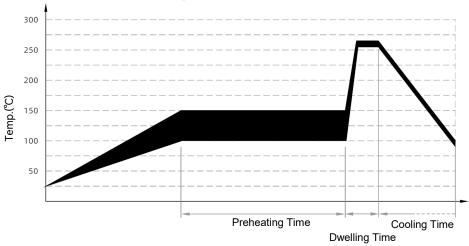
Miniature Fuses

Cartridge Fuse-links (CFL)

SCF520(P) Series, Fast Acting Ceramic Tube

Soldering Parameters

Wave soldering Parameters (For Reference Only)



Item	Temp. (°C)	Time (second)
Preheating	100 ~ 150	60 ~ 180
Dwelling	255 ~ 265	4 ~ 8

Recommended Soldering Parameters

Solder Iron Temp.: (350 ± 5) °C

Soldering Time: 5 seconds, Max.

Lead Wire Bending

If the lead wire has to be bent, please pay attention to the distance between body and the bending point. Refer to the following table.

Axial Type						
d	≤ Φ 1.0 mm	> Ф 1.0 mm				
L	≥ 3 mm	≥ 5 mm				



SCF520(P) Series, Fast Acting Ceramic Tube

Glossary

Item	Description
Fuse	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. —(IEC 60127)
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, this rating can be identified with a numeric, alpha, or color code mark. —(IEC 60127)
Rated Voltage	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. —(IEC 60127)
Ampere Squared Seconds <i>I</i> ² <i>t</i>	The melting, arcing, or clearing integral of a fuse, termed l^2t , is the thermal energy required to melt, arc, or clear a specific current. It can be expressed as melting l^2t , arcing l^2t or the sum of them, clearing l^2t . —(IEC 60127)
Overload	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. —(UL 248)
Overcurrent	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. —(UL 248)
Short Circuit	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. —(UL 248)
Breaking Capacity of a Fuse-link	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. —(IEC 60127)

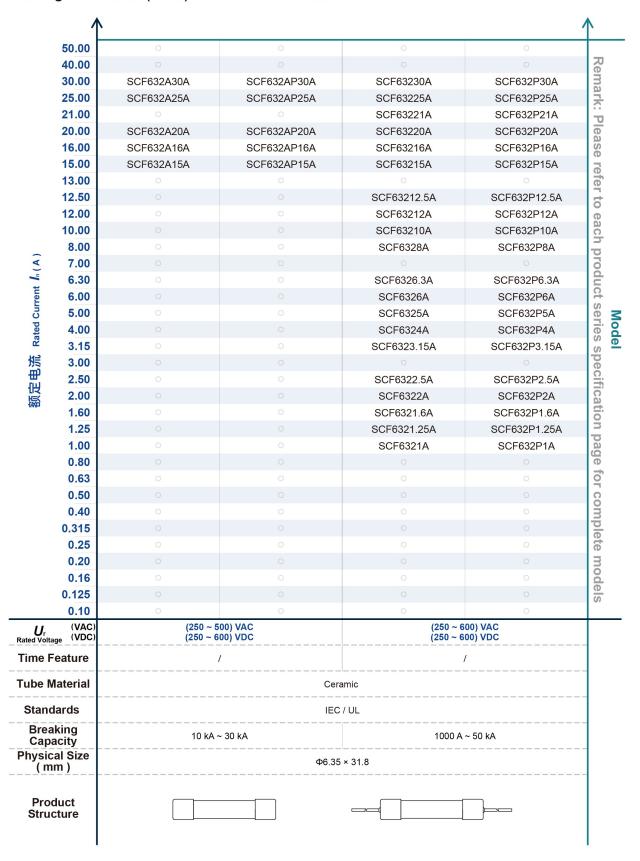
SCF520(P) Series, Fast Acting Ceramic Tube

Reliability Test

No.	Items	Inspection Standards	Standards
1	High Temp. Test	Test Condition: Temperature: (105 ± 2) °C Time: 1000 hours 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.	MIL-STD-202(Test Method 108) GJB360B(Test Method 108)
2	High Humidity Test	Test Condition: Temperature: (40 ± 2) °C Humidity: 90% to 95% Time: 96 hours 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.	MIL-STD-202(Test Method 103) GJB360B(Test Method 103)
3	Thermal Shock Test	Test Condition: Per Cycle: -55 °C / 30 minutes, 125 °C / 30 minutes Time: 100 Cycles 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.	MIL-STD-202(Test Method 107) GJB360B(Test Method 107)

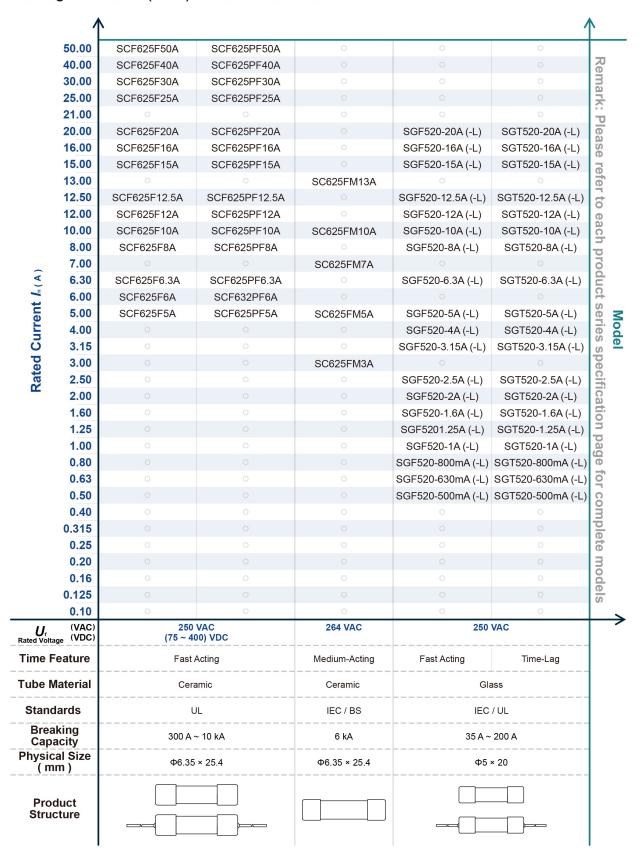
SCF520(P) Series, Fast Acting Ceramic Tube

Cartridge Fuse-links (CFL) Features & Model List Overview



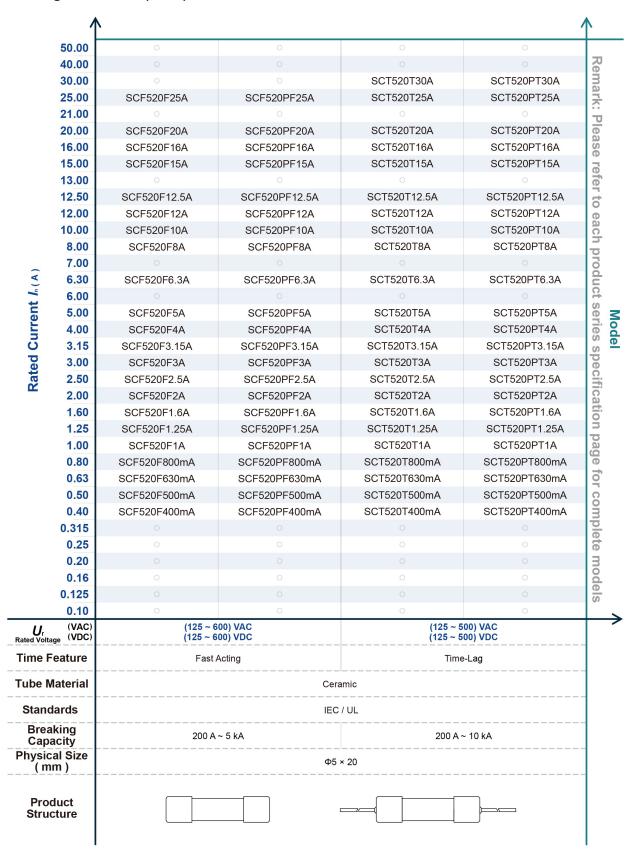
SCF520(P) Series, Fast Acting Ceramic Tube

Cartridge Fuse-links (CFL) Features & Model List Overview



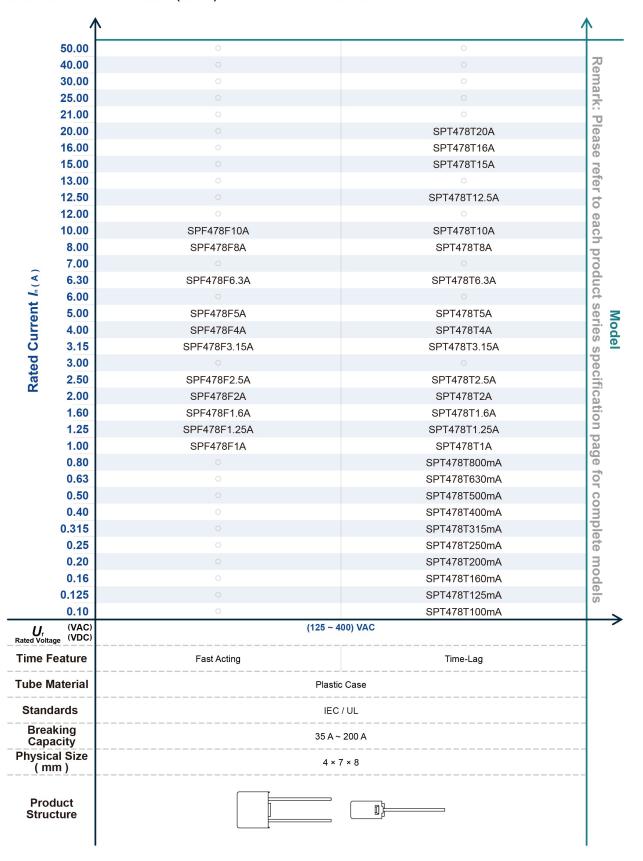
SCF520(P) Series, Fast Acting Ceramic Tube

Cartridge Fuse-links (CFL) Features & Model List Overview



SCF520(P) Series, Fast Acting Ceramic Tube

Sub-miniature Fuse-links (SFL) Feature & Model List Overview



SCF520(P) Series, Fast Acting Ceramic Tube

Surface Mount Fuse-lingks (SMFL) Feature & Model List Overview

