



PPTC SMD Resettable Fuse Hold Current 0.5A Rated Voltage 16Vmax 0.6W Typical Power

Our Product Introduction

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Basic Information

- Place of Origin: Shenzhen, Guangdong, China
- Brand Name: SOCAY
- Certification: UL, TUV, REACH, RoHS, ISO
- Model Number: SCF050-1210RB
- Minimum Order Quantity: 4000PCS
- Price: Negotiable
- Delivery Time: 5-8 work days



Product Specification

- Product Name: PPTC Resettable Fuse
- Package Type: SMD1210
- I Hold: 0.5A
- I Trip: 1A
- V Max: 16V
- I Max: 100A
- P Dtyp.: 0.6W
- Maximum Time To Trip Current: 8A
- Maximum Time To Trip Time: 0.1Sec
- Resistance Min: 0.18Ω
- Resistance Max: 0.9Ω
- Highlight: **PPTC SMD Resettable Fuse, 0.5A SMD Resettable Fuse**



More Images



Product Description

SMD Resettable PPTC SCF050-1210RB Hold Current 0.5A Rated Voltage 16Vmax 0.6W Typical Power

DATASHEET: [SCF1210RB Series_v2305.1.pdf](#)

Part Number	Hold Current	Trip Current	Rated Voltage	Max Current	Typical Power	Maximum Time To Trip		Resistance	
	I_{hold} (A)	I_{trip} (A)	V_{max} (Vdc)	I_{max} (A)	$P_{dtyp.}$ (W)	Current (A)	Time (Sec.)	R_{min} (Ω)	R_{1max} (Ω)
SCF005-1210RB	0.05	0.15	60.0	100	0.6	0.25	1.50	2.800	50.00
SCF010-1210RB	0.10	0.30	60.0	100	0.6	0.50	0.60	0.800	15.00
SCF020-1210RB	0.20	0.40	30.0	100	0.6	8.0	0.02	0.400	5.000
SCF035-1210RB	0.35	0.75	16.0	100	0.6	8.0	0.20	0.200	1.300
SCF035-30-1210RB	0.35	0.75	30.0	100	0.6	8.0	0.20	0.200	1.300
SCF050-1210RB	0.50	1.00	16.0	100	0.6	8.0	0.10	0.180	0.900
SCF075-1210RB	0.75	1.50	6.0	100	0.6	8.0	0.10	0.070	0.400
SCF075-24-1210RB	0.75	1.50	24.0	100	0.6	8.0	0.10	0.070	0.450
SCF110-1210RB	1.10	2.20	6.0	100	0.6	8.0	0.30	0.050	0.210
SCF110-16-1210RB	1.10	2.20	16.0	100	0.8	8.0	0.30	0.050	0.250
SCF150-1210RB	1.50	3.00	6.0	100	0.8	8.0	0.50	0.030	0.110
SCF150-16-1210RB	1.50	3.00	16.0	100	0.6	8.0	0.50	0.030	0.160
SCF175-1210RB	1.75	3.50	6.0	100	0.8	8.0	0.60	0.020	0.080
SCF200-1210RB	2.00	4.00	6.0	100	0.8	8.0	1.00	0.015	0.070

I_{hold} = Hold Current. Maximum current device will not trip in 25 still air.

I_{trip} = Trip Current. Minimum current at which the device will always trip in 25 still air.

V_{max} = Maximum operating voltage device can withstand without damage at rated current (I_{max}).

I_{max} = Maximum fault current device can withstand without damage at rated voltage (V_{max}).

$P_{dtyp.}$ = Maximum power dissipation when device is in the tripped state in 25 still air environment at rated voltage.

R_{min} = Minimum device resistance prior to tripping at 25.

R_{1max} = Maximum device resistance is measured one hour post reflow.

Features:

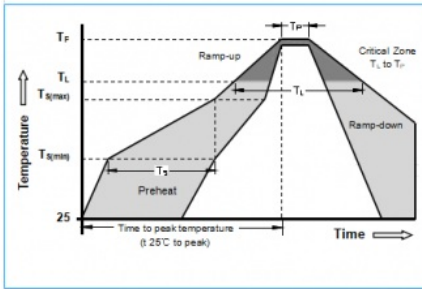
- u RoHS Compliant & Halogen Free
- u Faster tripping, 1210 Dimension, Surface mountable, Solid state
- u Operation Current: 0.05A ~ 2.00A
- u Maximum Voltage: 6V ~ 60Vdc
- u Operating Temperature: -40 ~ + 85

Test Item	Test Conditions	Accept / Reject Criteria
Resistance	In still air @ 25	$R_{min} \leq R \leq R_{1max}$
Time to Trip	Specified current, V_{max} , 25	$T \leq$ Maximum Time to Trip
Holding Current	30min, at I_H	No trip
Trip Cycle Life	V_{max} , I_{max} , 100cycles	No arcing or burning
Trip Endurance	V_{max} , 1 hour	No arcing or burning

Model	Maximum ambient operating temperature ()								
	-40	-20	0	25	40	50	60	70	85
SCF005-1210RB	0.08	0.07	0.06	0.05	0.04	0.04	0.03	0.03	0.02
SCF010-1210RB	0.16	0.14	0.12	0.10	0.08	0.07	0.06	0.05	0.05
SCF020-1210RB	0.29	0.26	0.22	0.20	0.16	0.14	0.13	0.11	0.08
SCF035-1210RB	0.47	0.45	0.40	0.35	0.33	0.28	0.24	0.21	0.18
SCF035-30-1210RB	0.47	0.45	0.40	0.35	0.33	0.28	0.24	0.21	0.18
SCF050-1210RB	0.76	0.67	0.58	0.50	0.43	0.40	0.36	0.32	0.28
SCF075-1210RB	1.00	0.97	0.86	0.75	0.64	0.59	0.54	0.48	0.40
SCF075-24-1210RB	1.00	0.97	0.86	0.75	0.64	0.59	0.54	0.48	0.40
SCF110-1210RB	1.60	1.42	1.26	1.10	0.94	0.86	0.80	0.70	0.58
SCF110-16-1210RB	1.60	1.42	1.26	1.10	0.94	0.86	0.80	0.70	0.58

SCF150-1210RB	2.30	2.02	1.76	1.50	1.24	1.11	1.00	0.85	0.65
SCF150-16-1210RB	2.30	2.02	1.76	1.50	1.24	1.11	1.00	0.85	0.65
SCF175-1210RB	2.45	2.22	2.01	1.75	1.45	1.26	1.10	0.98	0.80
SCF200-1210RB	2.60	2.44	2.35	2.00	1.78	1.67	1.50	1.45	1.10

Soldering Parameters



Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate (T ₁ max to T _p)	3°C/second max.
Preheat : Temperature Min (T ₁ min) Temperature Max (T ₁ max) Time (T ₁ min to T ₁ max)	150°C 200°C 60-120 seconds
Time maintained above: Temperature (T ₁) Time (T ₁)	217°C 60-150 seconds
Peak/Classification Temperature (T _p)	260°C
Time within 5 °C of actual peak temperature: Time (T _p)	30 seconds max.
Ramp-down Rate	3°C/ second max.
Time 25°C to Peak Temperature	8 minutes max.

- Recommended reflow methods: In, vapor phase oven, hot air oven, N₂ environment for lead-free.
 - Devices are not designed to be wave soldered to the bottom side of the board.
 - Recommended maximum paste thickness is 0.25mm (0.01inch).
 - Devices can be cleaned using standard industry methods and solvents.
 - Soldering temperature profile meets RoHS leadfree process.
- Note 1: All temperature refer to topside of the package, measured on the package body surface.
Note 2: If reflow temperature exceed the recommended profile, devices may not meet the performance requirements.

Part Numbering

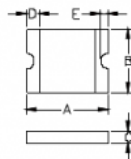
SCF XXX – XX – 1210 RB 	 Example SZ= SCF005-1210RB SN= SCF010-1210RB SF= SCF020-1210RB SB= SCF035-1210RB SB= SCF035-30-1210RB SG= SCF050-1210RB SA= SCF075-1210RB SA= SCF075-24-1210RB SK= SCF110-1210RB SK= SCF110-16-1210RB SK= SCF150-1210RB SK= SCF150-16-1210RB SK= SCF175-1210RB SK= SCF200-1210RB
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Recommended Solder Pad Layout Dimensions (Unit: mm)

The dimension in the table below provide the recommended pad layout for each SCF1210RB Series device

Device	A	B	C
1210 Series	2.0±0.1	1.0±0.1	2.5±0.1

Product Dimensions (Unit: mm)



Part Number	A		B		C		D	E
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.
SCF005-1210RB	3.00	3.43	2.35	2.80	0.60	1.25	0.15	0.10
SCF010-1210RB	3.00	3.43	2.35	2.80	0.60	1.25	0.15	0.10
SCF020-1210RB	3.00	3.43	2.35	2.80	0.50	1.00	0.15	0.10
SCF035-1210RB	3.00	3.43	2.35	2.80	0.35	0.90	0.15	0.10
SCF035-30-1210RB	3.00	3.43	2.35	2.80	0.35	1.00	0.15	0.10
SCF050-1210RB	3.00	3.43	2.35	2.80	0.35	0.90	0.15	0.10
SCF075-1210RB	3.00	3.43	2.35	2.80	0.35	0.85	0.15	0.10
SCF075-24-1210RB	3.00	3.43	2.35	2.80	0.50	1.10	0.15	0.10
SCF110-1210RB	3.00	3.43	2.35	2.80	0.40	1.00	0.15	0.10
SCF110-16-1210RB	3.00	3.43	2.35	2.80	0.50	1.10	0.15	0.10
SCF150-1210RB	3.00	3.43	2.35	2.80	0.60	1.40	0.15	0.10
SCF150-16-1210RB	3.00	3.43	2.35	2.80	0.70	1.50	0.25	0.10
SCF175-1210RB	3.00	3.43	2.35	2.80	0.60	1.40	0.15	0.10
SCF200-1210RB	3.00	3.43	2.35	2.80	0.60	1.50	0.15	0.10

Part Number	Quantity	Part Number	Quantity
SCF005-1210RB	4000 PCS	SCF075-24-1210RB	4000 PCS
SCF010-1210RB	4000 PCS	SCF110-1210RB	4000 PCS
SCF020-1210RB	4000 PCS	SCF110-16-1210RB	4000 PCS
SCF035-1210RB	4000 PCS	SCF150-1210RB	4000 PCS

SCF035-30-1210RB	4000 PCS	SCF150-16-1210RB	3000 PCS
SCF050-1210RB	4000 PCS	SCF175-1210RB	4000 PCS
SCF075-1210RB	4000 PCS	SCF200-1210RB	4000 PCS



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