



SCF160-16-1812RB Resettable Fuse PPTC 16Vmax 1.0W Power Resistance 0.03 - 0.13Ω

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: SCF160-16-1812RB
- Minimum Order Quantity: 2000PCS
- Price: Negotiable
- Delivery Time: 5-8 work days



Product Specification

- Product Name: PPTC Resettable Fuse
- Package Type: SMD1812
- I Hold: 1.6A
- I Trip: 2.8A
- V Max: 16V
- I Max: 40A
- P Dtyp.: 1.0W
- Maximum Time To Trip Current: 8A
- Maximum Time To Trip Time: 1Sec
- Resistance Min: 0.03Ω
- Resistance Max: 0.13Ω
- Highlight: **Resettable Fuse PPTC 16Vmax, 1.0W Resettable Fuse PPTC**



More Images



Product Description

SMD1812 Series Resettable Fuse SCF160-16-1812RB 16Vmax 1.0W Typical Power Resistance 0.03~0.13Ω

DATASHEET: [SCF1812RB Series_v2310.1.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)
SCF010-1812RB	0.10	0.30	60.0	100	0.8	0.50	1.50	0.750	15.000
SCF014-1812RB	0.14	0.34	60.0	100	0.8	1.50	0.15	0.650	6.000
SCF020-1812RB	0.20	0.40	30.0	100	0.8	8.0	0.02	0.350	5.000
SCF030-1812RB	0.30	0.60	30.0	100	0.8	8.0	0.10	0.250	3.000
SCF035-1812RB	0.35	0.70	16.0	100	0.8	8.0	0.10	0.200	2.500
SCF035-30-1812RB	0.35	0.70	30.0	100	0.8	8.0	0.10	0.200	2.500
SCF050-1812RB	0.50	1.00	15.0	100	0.8	8.0	0.15	0.150	1.000
SCF050-24-1812RB	0.50	1.00	24.0	100	0.8	8.0	0.15	0.150	1.000
SCF050-30-1812RB	0.50	1.00	30.0	100	0.8	8.0	0.15	0.150	1.000
SCF050-60-1812RB	0.50	1.00	60.0	40	0.8	8.0	0.15	0.150	1.400
SCF075-1812RB	0.75	1.50	13.2	100	0.8	8.0	0.20	0.090	0.450
SCF075-24-1812RB	0.75	1.50	24.0	100	0.8	8.0	0.20	0.090	0.450
SCF075-33-1812RB	0.75	1.50	33.0	100	0.8	8.0	0.20	0.090	0.450
SCF110-1812RB	1.10	2.20	8.0	100	0.8	8.0	0.30	0.050	0.250
SCF110-16-1812RB	1.10	2.20	16.0	100	0.8	8.0	0.30	0.050	0.250
SCF110-24-1812RB	1.10	2.20	24.0	100	0.8	8.0	0.30	0.050	0.250
SCF110-33-1812RB	1.10	2.20	33.0	100	0.8	8.0	0.30	0.050	0.250
SCF125-1812RB	1.25	2.50	8.0	100	0.8	8.0	0.40	0.050	0.200
SCF125-16-1812RB	1.25	2.50	16.0	100	0.8	8.0	0.40	0.050	0.200
SCF150-1812RB	1.50	3.00	8.0	100	0.8	8.0	0.50	0.040	0.160
SCF150-16-1812RB	1.50	3.00	16.0	100	0.8	8.0	0.50	0.040	0.160
SCF150-24-1812RB	1.50	3.00	24.0	100	0.8	8.0	0.50	0.040	0.160
SCF160-1812RB	1.60	2.80	8.0	100	0.8	8.0	1.00	0.030	0.130
SCF160-16-1812RB	1.60	2.80	16	40	1.0	8.0	1.00	0.030	0.130
SCF200-1812RB	2.00	4.00	8.0	100	0.8	8.0	2.00	0.020	0.100
SCF200-12-1812RB	2.00	4.00	12.0	100	0.8	8.0	2.00	0.020	0.100
SCF200-16-1812RB	2.00	4.00	16.0	100	0.8	8.0	2.00	0.020	0.100
SCF260-1812RB	2.60	5.00	8.0	100	1.0	8.0	2.50	0.015	0.050
SCF260-12-1812RB	2.60	5.00	12.0	100	1.0	8.0	2.50	0.015	0.060
SCF260-16-1812RB	2.60	5.00	16.0	100	1.0	8.0	2.50	0.015	0.060
SCF300-1812RB	3.00	5.00	6.0	100	1.0	8.0	4.00	0.012	0.040

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.

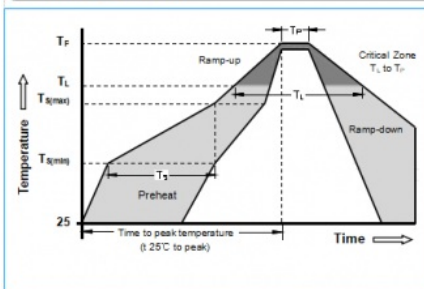
R_{1max} = Maximum device resistance is measured one hour post reflow.

Features:

- u RoHS Compliant & Halogen Free
- u Faster tripping, 1812 Dimension, Surface mountable, Solid state
- u Operation Current: 0.10A ~ 3.00A
- u Maximum Voltage: 6V ~ 60Vdc
- u Operating Temperature: -40 ~ + 85

Model	Maximum ambient operating temperature ()								
	-40	-20	0	25	40	50	60	70	85
SCF010-1812RB	0.16	0.14	0.12	0.10	0.08	0.07	0.06	0.05	0.03
SCF014-1812RB	0.23	0.19	0.17	0.14	0.12	0.10	0.09	0.08	0.06
SCF020-1812RB	0.29	0.26	0.23	0.20	0.17	0.15	0.14	0.12	0.10
SCF030-1812RB	0.44	0.39	0.35	0.30	0.26	0.23	0.21	0.17	0.15
SCF035-1812RB	0.51	0.46	0.41	0.35	0.30	0.27	0.25	0.21	0.17
SCF035-30-1812RB	0.51	0.46	0.41	0.35	0.30	0.27	0.25	0.21	0.17
SCF050-1812RB	0.59	0.57	0.55	0.50	0.45	0.43	0.35	0.30	0.23
SCF050-24-1812RB	0.59	0.57	0.55	0.50	0.45	0.43	0.35	0.30	0.23
SCF050-30-1812RB	0.59	0.57	0.55	0.50	0.45	0.43	0.35	0.30	0.23
SCF050-60-1812RB	0.59	0.57	0.55	0.50	0.45	0.43	0.35	0.30	0.23
SCF075-1812RB	1.10	0.99	0.87	0.75	0.63	0.57	0.49	0.45	0.35
SCF075-24-1812RB	1.10	0.99	0.87	0.75	0.63	0.57	0.49	0.45	0.35
SCF075-33-1812RB	1.10	0.99	0.87	0.75	0.63	0.57	0.49	0.45	0.35
SCF110-1812RB	1.60	1.45	1.28	1.10	0.92	0.83	0.71	0.66	0.52
SCF110-16-1812RB	1.60	1.45	1.28	1.10	0.92	0.83	0.71	0.66	0.52
SCF110-24-1812RB	1.60	1.45	1.28	1.10	0.92	0.83	0.71	0.66	0.52
SCF110-33-1812RB	1.60	1.45	1.28	1.10	0.92	0.83	0.71	0.66	0.52
SCF125-1812RB	2.00	1.75	1.52	1.25	1.00	0.95	0.90	0.75	0.53
SCF125-16-1812RB	2.00	1.75	1.52	1.25	1.00	0.95	0.90	0.75	0.53
SCF150-1812RB	2.30	2.05	1.77	1.50	1.23	1.09	0.95	0.82	0.61
SCF150-16-1812RB	2.30	2.05	1.77	1.50	1.23	1.09	0.95	0.82	0.61
SCF150-24-1812RB	2.30	2.05	1.77	1.50	1.23	1.09	0.95	0.82	0.61
SCF160-1812RB	2.45	2.15	1.89	1.60	1.34	1.25	1.15	0.96	0.79
SCF160-16-1812RB	2.45	2.15	1.89	1.60	1.34	1.25	1.15	0.96	0.79
SCF200-1812RB	2.89	2.61	2.30	2.00	1.75	1.66	1.45	1.39	1.19
SCF200-12-1812RB	2.89	2.61	2.30	2.00	1.75	1.66	1.45	1.39	1.19
SCF200-16-1812RB	2.89	2.61	2.30	2.00	1.75	1.66	1.45	1.39	1.19
SCF260-1812RB	3.76	3.39	2.99	2.60	2.28	2.16	1.89	1.81	1.55
SCF260-12-1812RB	3.38	3.05	2.69	2.60	2.05	1.94	1.70	1.63	1.39
SCF260-16-1812RB	3.38	3.05	2.69	2.60	2.05	1.94	1.70	1.63	1.39
SCF300-1812RB	4.34	3.92	3.45	3.00	2.63	2.49	2.18	2.09	1.79

Soldering Parameters



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

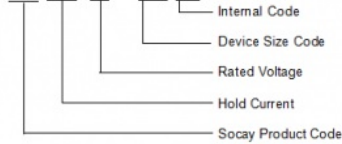
- Recommended reflow methods: In, vapor phase oven, hot air oven, N2 environment for lead-free.
- Devices are not designed to be wave soldered to the bottom side of the board.
- Recommended maximum paste thickness is 0.25mm (0.010inch).
- Devices can be cleaned using standard industry methods and solvents.
- 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 – 1812 RB

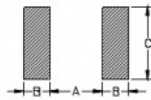


Example

SC010= SCF010-1812RB	SC110= SCF110-33-1812RB
SC014= SCF014-1812RB	SC125= SCF125-16-1812RB
SC020= SCF020-1812RB	SC125= SCF125-16-1812RB
SC030= SCF030-1812RB	SC150= SCF150-1812RB
SC035= SCF035-1812RB	SC150= SCF150-16-1812RB
SC035= SCF035-30-1812RB	SC150= SCF150-24-1812RB
SC050= SCF050-1812RB	SC160= SCF160-1812RB
SC050= SCF050-24-1812RB	SC160= SCF160-16-1812RB
SC050= SCF050-30-1812RB	SC200= SCF200-1812RB
SC050= SCF050-60-1812RB	SC200= SCF200-12-1812RB
SC075= SCF075-1812RB	SC200= SCF200-16-1812RB
SC075= SCF075-24-1812RB	SC260= SCF260-1812RB
SC075= SCF075-33-1812RB	SC260= SCF260-12-1812RB
SC110= SCF110-1812RB	SC260= SCF260-16-1812RB
SC110= SCF110-16-1812RB	SC300= SCF300-1812RB
SC110= SCF110-24-1812RB	

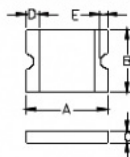
Recommended Solder Pad Layout Dimensions (Unit: mm)

The dimension in the table below provide the recommended pad layout for each SCF1812RB Series device.



Device	A	B	C
1812 Series	3.2 ± 0.1	1.78 ± 0.1	3.2 ± 0.1

Product Dimensions (Unit: mm)



Part Number	A		B		C		D	E
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.
SCF010-1812RB	4.37	4.73	3.07	3.41	0.50	1.00	0.30	0.15
SCF014-1812RB	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.15
SCF020-1812RB	4.37	4.73	3.07	3.41	0.50	1.00	0.30	0.15
SCF030-1812RB	4.37	4.73	3.07	3.41	0.50	1.00	0.30	0.15
SCF035-1812RB	4.37	4.73	3.07	3.41	0.50	1.00	0.30	0.25
SCF035-30-1812RB	4.37	4.73	3.07	3.41	0.50	1.00	0.30	0.25
SCF050-1812RB	4.37	4.73	3.07	3.41	0.40	0.90	0.30	0.15
SCF050-24-1812RB	4.37	4.73	3.07	3.41	0.40	0.90	0.30	0.15
SCF050-30-1812RB	4.37	4.73	3.07	3.41	0.40	1.00	0.30	0.15
SCF050-60-1812RB	4.37	4.73	3.07	3.41	0.50	1.40	0.30	0.15
SCF075-1812RB	4.37	4.73	3.07	3.41	0.40	0.90	0.30	0.15
SCF075-24-1812RB	4.37	4.73	3.07	3.41	0.50	1.20	0.30	0.15
SCF075-33-1812RB	4.37	4.73	3.07	3.41	0.60	1.20	0.30	0.15
SCF110-1812RB	4.37	4.73	3.07	3.41	0.40	0.90	0.30	0.15
SCF110-16-1812RB	4.37	4.73	3.07	3.41	0.40	0.90	0.30	0.15
SCF110-24-1812RB	4.37	4.73	3.07	3.41	0.60	1.30	0.30	0.15
SCF110-33-1812RB	4.37	4.73	3.07	3.41	0.70	1.70	0.30	0.15
SCF125-1812RB	4.37	4.73	3.07	3.41	0.30	0.90	0.30	0.15
SCF125-16-1812RB	4.37	4.73	3.07	3.41	0.50	1.20	0.30	0.15
SCF150-1812RB	4.37	4.73	3.07	3.41	0.30	0.90	0.30	0.15
SCF150-16-1812RB	4.37	4.73	3.07	3.41	0.50	1.20	0.30	0.15
SCF150-24-1812RB	4.37	4.73	3.07	3.41	0.80	1.70	0.30	0.15
SCF160-1812RB	4.37	4.73	3.07	3.41	0.30	0.80	0.30	0.15
SCF160-16-1812RB	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25
SCF200-1812RB	4.37	4.73	3.07	3.41	0.40	1.20	0.30	0.15
SCF200-12-1812RB	4.37	4.73	3.07	3.41	0.40	1.20	0.30	0.15
SCF200-16-1812RB	4.37	4.73	3.07	3.41	0.50	1.20	0.30	0.15
SCF260-1812RB	4.37	4.73	3.07	3.41	0.50	1.20	0.30	0.15
SCF260-12-1812RB	4.37	4.73	3.07	3.41	0.60	1.50	0.30	0.15
SCF260-16-1812RB	4.37	4.73	3.07	3.41	0.80	1.80	0.30	0.15
SCF300-1812RB	4.37	4.73	3.07	3.41	0.50	1.50	0.30	0.15

Part Number	Quantity	Part Number	Quantity
SCF010-1812RB	1500 PCS	SCF110-33-1812RB	1500 PCS
SCF014-1812RB	1500 PCS	SCF125-1812RB	2000 PCS
SCF020-1812RB	1500 PCS	SCF125-16-1812RB	1500 PCS
SCF030-1812RB	1500 PCS	SCF150-1812RB	2000 PCS
SCF035-1812RB	1500 PCS	SCF150-16-1812RB	1500 PCS
SCF035-30-1812RB	1500 PCS	SCF150-24-1812RB	1500 PCS
SCF050-1812RB	2000 PCS	SCF160-1812RB	2000 PCS
SCF050-24-1812RB	2000 PCS	SCF160-16-1812RB	2000 PCS
SCF050-30-1812RB	2000 PCS	SCF200-1812RB	2000 PCS
SCF050-60-1812RB	1500 PCS	SCF200-12-1812RB	1500 PCS
SCF075-1812RB	2000 PCS	SCF200-16-1812RB	1500 PCS
SCF075-24-1812RB	2000 PCS	SCF260-1812RB	1500 PCS
SCF075-33-1812RB	1500 PCS	SCF260-12-1812RB	1500 PCS

SCF110-1812RB	2000 PCS	SCF260-16-1812RB	1500 PCS
SCF110-16-1812RB	2000 PCS	SCF300-1812RB	1500 PCS
SCF110-24-1812RB	1500 PCS	--	--



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