



I_{max} 40A PPTC Resettable Fuse SCF050-9-0805RB 0.5A 9V_{max} SMD0805 Package

Our Product Introduction

Basic Information

- Place of Origin: Shenzhen, Guangdong, China
- Brand Name: SOCAY
- Certification: UL, TUV, REACH, RoHS, ISO
- Model Number: SCF050-9-0805RB
- Minimum Order Quantity: 4000PCS
- Price: Negotiable
- Delivery Time: 5-8 work days



Product Specification

- Product Name: PPTC Resettable Fuse
- Package Type: SMD0805
- I_{Hold}: 0.5A
- I_{Trip}: 1A
- V_{Max}: 9V
- I_{Max}: 40A
- P_{Dtyp.}: 0.5W
- Maximum Time To Trip Current: 8A
- Maximum Time To Trip Time: 0.1Sec
- Resistance Min: 0.15Ω
- Resistance Max: 0.9Ω
- Highlight: 40A PPTC Resettable Fuse, SMD0805 PPTC Resettable Fuse, 40A Resettable Fuse



More Images



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Product Description

SOCAY PPTC Resettable Fuse SCF050-9-0805RB 0.5A 9Vmax SMD0805 Package I_{max} 40A

DATASHEET: [SCF0805RB Series_v2208.1.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)
SCF005-0805RB	0.05	0.15	15.0	100	0.50	0.50	1.50	1.500	25.00
SCF010-0805RB	0.10	0.30	15.0	100	0.50	0.50	1.50	1.000	8.000
SCF010-24-0805RB	0.10	0.30	24.0	100	0.50	0.50	1.50	1.000	8.000
SCF020-0805RB	0.20	0.50	9.0	100	0.50	8.00	0.02	0.500	3.500
SCF025-0805RB	0.25	0.50	6.0	100	0.50	8.00	0.02	0.450	3.200
SCF030-0805RB	0.30	0.70	6.0	100	0.50	8.00	0.10	0.250	2.000
SCF035-0805RB	0.35	0.75	6.0	100	0.50	8.00	0.10	0.250	1.200
SCF035-12-0805RB	0.35	0.75	12.0	100	0.50	8.00	0.10	0.250	1.300
SCF050-0805RB	0.50	1.00	6.0	100	0.60	8.00	0.10	0.150	0.850
SCF050-9-0805RB	0.50	1.00	9.0	40	0.50	8.00	0.10	0.150	0.900
SCF075-0805RB	0.75	1.50	6.0	100	0.60	8.00	0.20	0.090	0.385
SCF100-0805RB	1.00	1.95	6.0	100	0.60	8.00	0.30	0.060	0.230
SCF110-0805RB	1.10	2.20	6.0	100	0.60	8.00	0.30	0.060	0.210

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, 0805 Dimension, Surface mountable, Solid state
- u Operation Current: 0.05A ~ 1.10A
- u Maximum Voltage: 6V ~ 24Vdc
- u Operating Temperature: -40 ~ + 85

Test Item	Test Conditions	Accept / Reject Criteria
Resistance	In still air @ 25	R _{min} ≤ R ≤ R _{1max}
Time to Trip	Specified current, V _{max} , 25	T ≤ 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

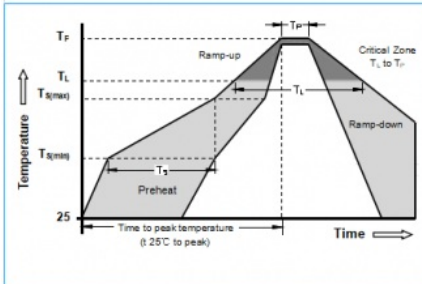
Terminal Materials	Tin-Plated Nickle-copper
Soldering Zone	Meets EIA specification RS 186-9E and ANSI/J-STD-002 Category 3.

Test Item	Test Conditions	Resistance Change
Passive Aging	85 , 1000 hours	±10%
Humidity Aging	85 /85%RH. 100 hours	±5%
Thermal Shock	MIL-STD-202, Method 107G +85 /-40 , 20 times	±33% typical resistance change
Solvent Resistance	MIL-STD-202, Method 215	No change
Vibration	ML-STD-883C, Test Condition A	No change

Model	Maximum ambient operating temperature ()								
	-40	-20	0	25	40	50	60	70	85
SCF005-0805RB	0.070	0.063	0.058	0.050	0.043	0.035	0.030	0.025	0.018
SCF010-0805RB	0.140	0.125	0.115	0.100	0.085	0.070	0.060	0.050	0.035
SCF010-24-0805RB	0.140	0.125	0.115	0.100	0.085	0.070	0.060	0.050	0.035
SCF020-0805RB	0.280	0.250	0.230	0.200	0.170	0.140	0.120	0.100	0.070
SCF025-0805RB	0.350	0.310	0.290	0.250	0.210	0.180	0.150	0.013	0.090

SCF030-0805RB	0.420	0.380	0.350	0.300	0.255	0.210	0.180	0.150	0.110
SCF035-0805RB	0.470	0.440	0.390	0.350	0.300	0.270	0.240	0.200	0.140
SCF035-12-0805RB	0.470	0.440	0.390	0.350	0.300	0.270	0.240	0.200	0.140
SCF050-0805RB	0.680	0.620	0.550	0.500	0.400	0.370	0.330	0.290	0.230
SCF050-9-0805RB	0.680	0.620	0.550	0.500	0.400	0.370	0.330	0.290	0.230
SCF075-0805RB	1.000	0.900	0.790	0.750	0.630	0.570	0.530	0.410	0.340
SCF100-0805RB	1.350	1.250	1.100	1.000	0.820	0.740	0.650	0.550	0.420
SCF110-0805RB	1.450	1.350	1.200	1.100	0.920	0.840	0.750	0.650	0.520

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_{1min}) Temperature Max (T_{1max}) Time (T_{1min} to T_{1max})	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 (0.010inch).
 - 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 - 0805 RB Internal Code Device Size Code Rated Voltage Hold Current Socay Product Code	 Example 1= SCF005-0805RB 1= SCF010-0805RB 1= SCF010-24-0805RB 2= SCF020-0805RB 2= SCF025-0805RB 3= SCF030-0805RB 3= SCF035-0805RB 3= SCF035-012-0805RB 5= SCF050-0805RB 5= SCF050-9-0805RB 7= SCF075-0805RB 0= SCF100-0805RB 0= SCF110-0805RB
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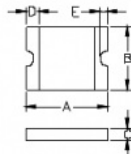
Recommended Solder Pad Layout Dimensions (Unit: mm)

The dimension in the table below provide the recommended pad layout for each SCF0805RB Series device



Device	A	B	C
0805 Series	1.2 ± 0.1	1.0 ± 0.1	1.5 ± 0.1

Product Dimensions (Unit: mm)



Part Number	A		B		C		D	E
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.
SCF005-0805RB	2.00	2.20	1.20	1.50	0.45	1.00	0.20	0.10
SCF010-0805RB	2.00	2.20	1.20	1.50	0.40	1.00	0.20	0.10
SCF010-24-0805RB	2.00	2.20	1.20	1.50	0.45	1.00	0.20	0.10
SCF020-0805RB	2.00	2.20	1.20	1.50	0.40	1.00	0.20	0.10
SCF025-0805RB	2.00	2.20	1.20	1.50	0.40	1.00	0.20	0.10
SCF030-0805RB	2.00	2.20	1.20	1.50	0.30	1.00	0.20	0.10
SCF035-0805RB	2.00	2.20	1.20	1.50	0.30	1.00	0.20	0.10
SCF035-12-0805RB	2.00	2.20	1.20	1.50	0.40	1.00	0.20	0.10
SCF050-0805RB	2.00	2.20	1.20	1.50	0.40	0.80	0.20	0.10
SCF050-9-0805RB	2.00	2.20	1.20	1.50	0.40	1.30	0.20	0.10
SCF075-0805RB	2.00	2.20	1.20	1.50	0.50	1.20	0.20	0.10
SCF100-0805RB	2.00	2.20	1.20	1.50	0.50	1.20	0.20	0.10
SCF110-0805RB	2.00	2.20	1.20	1.50	0.50	1.20	0.20	0.10

Part Number	Quantity	Part Number	Quantity
SCF005-0805RB	5000 PCS	SCF035-12-0805RB	5000 PCS
SCF010-0805RB/SCF010-24-0805RB	5000 PCS	SCF050-0805RB	5000 PCS
SCF020-0805RB	5000 PCS	SCF050-9-0805RB	4000 PCS
SCF025-0805RB	5000 PCS	SCF075-0805RB	4000 PCS
SCF030-0805RB	5000 PCS	SCF100-0805RB	4000 PCS
SCF035-0805RB	5000 PCS	SCF110-0805RB	4000 PCS

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