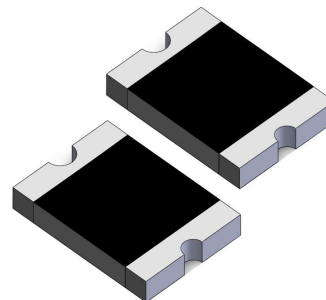


Surface Mount Resettable PTCs

SCF020-24-0805RB

Features

- ◆ RoHS Compliant & Halogen Free
- ◆ Faster tripping, 0805 Dimension, Surface mountable, Solid state
- ◆ Operation Current:0.2A
- ◆ Maximum Voltage: 24.0Vdc
- ◆ Operating Temperature: -40°C ~ + 85°C
- ◆ Agency recognition:UL、CSA、TUV



Electrical Parameters

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)
SCF020-24-0805RB	0.2	0.5	24.0	40.0	0.5	8.0	0.02	0.50	4.50

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

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

$R_{min/typ}$ = Minimum/Typical device resistance prior to tripping at 25°C.

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

Test Procedures and Requirements

Test Item	Test Conditions	Accept/Reject Criteria
Initial Resistance	25°C	0.50~4.500 Ω
Hold Current	25°C, 0.2A, 60min	No trip
Ttrip	25°C, 8A, 24.0V	≤0.02s
Trip Endurance	24.0V, 40A, 60min	No arcing or burning

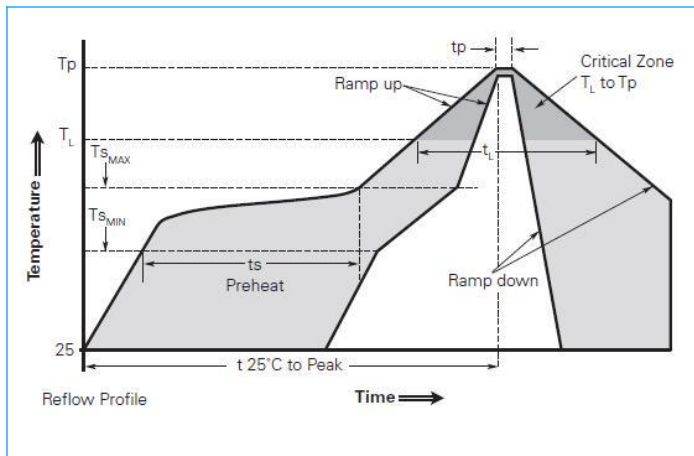
Physical Characteristics

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

Surface Mount Resettable PTCs

SCF020-24-0805RB

Soldering Parameters



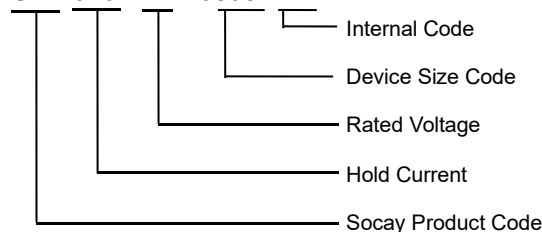
Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate (T_s max to T_P)	3°C/second max.
Preheat :	
Temperature Min (T_s min)	150°C
Temperature Max (T_s max)	200°C
Time (t_s min to t_s max)	60-120 seconds
Time maintained above:	
Temperature(T_L)	217°C
Time (t_L)	60-150 seconds
Peak/Classification Temperature(T_P)	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: IR, 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.

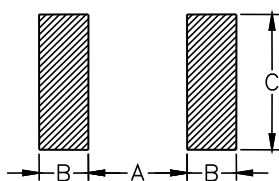
Note 2: If reflow temperature exceed the recommended profile,devices may not meet the performance requirements.

Part Numbering

SCF 020- 24 - 0805 RB


Recommended Solder Pad Layout Dimensions (Unit: mm)

The dimension in the table below provide the recommended pad layout for each SCF020-24-0805RB device

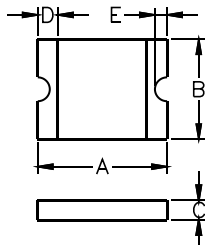


Device	A	B	C
0805 Series	1.2	1.0	1.5

Surface Mount Resettable PTCs

SCF020-24-0805RB

Product Dimensions (Unit: mm)



Part Number	A		B		C		D	E
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.
SCF020-24-0805RB	2.00	2.20	1.20	1.50	0.55	1.20	0.20	0.10

Packaging Quantity

Part Number	Packaging Option	Quantity
SCF020-24-0805RB	Tape & Reel	3500 PCS

Warning



- ◆ Operation beyond the specified maximum ratings or improper use may result in damage and possible electrical arcing and/or flame.
- ◆ PPTC device are intended for occasional over-current protection. Application for repeated over-current condition and/or prolonged trip are not anticipated.
- ◆ Avoid contact of PPTC device with chemical solvent. Prolonged contact will damage the device performance.