

Surface-Mount Devices | 0603 Size

SRF0603 Series

PTC Resettable Fuses

Features

- Resettable over current and over temperature protection
- Small size of 0603
- Fast time-to-trip
- Small footprint
- RoHS complaint
- Low resistance



Applications

- Computer
- Portable electronics
- Multimedia
- Game machines
- Telephony and broadband
- Mobile phones
- Industrial controls



Electrical Characteristics

| Part Number | I_H (A) | I_T (A) | V_{max} (V) | I_{max} (A) | Time to Trip | | $P_{d,typ}$ (W) | R_{min} (Ω) | $R1_{max}$ (Ω) |
|-------------|--------------|--------------|------------------|------------------|--------------|--------|--------------------|---------------------------|----------------------------|
| | | | | | (A) | (Sec.) | | | |
| SRF0603P020 | 0.20 | 0.50 | 9 | 40 | 1.00 | 0.60 | 0.50 | 0.55 | 3.50 |

I_H = Hold current: maximum current at which the device will not trip at 25 °C still air reflow soldering of 260 °C for 20 sec.

I_T = Trip current: minimum current at which the device will always trip at 25 °C still air reflow soldering of 260 °C for 20 sec.

V_{max} = Maximum continuous voltage device can withstand without damage at rated current

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

T_{trip} = Maximum time to trip(s) at assigned current reflow soldering of 260 °C for 20 sec.

$P_{d,typ}$ = Typical power dissipation: typical amount of power dissipated by the device when in state air environment.

R_{min} = Minimum resistance of device in initial (un-soldered) state.

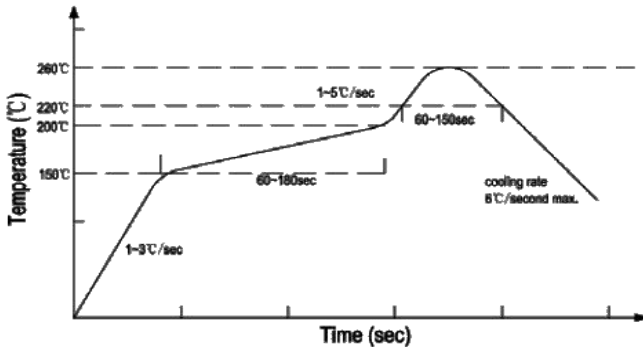
$R1_{max}$ = Maximum resistance of device at 25 °C measured one hour after reflow soldering of 260 °C for 20 sec.

Value specified is determined by using the PWB with 0.030" *1.5oz copper traces. Caution: Operation beyond the specified rating may result in damage and possible arcing and flame.

Thermal Derating Chart Hold Current (A)

| Part Number | Ambient Operating Temperature | | | | | | | | |
|-------------|-------------------------------|-------|------|------|------|------|------|------|------|
| | -40°C | -20°C | 0°C | 25°C | 40°C | 50°C | 60°C | 70°C | 85°C |
| SRF0603P020 | 0.27 | 0.25 | 0.23 | 0.20 | 0.17 | 0.14 | 0.12 | 0.10 | 0.07 |

Solder Reflow Recommendation



Reflow -curve

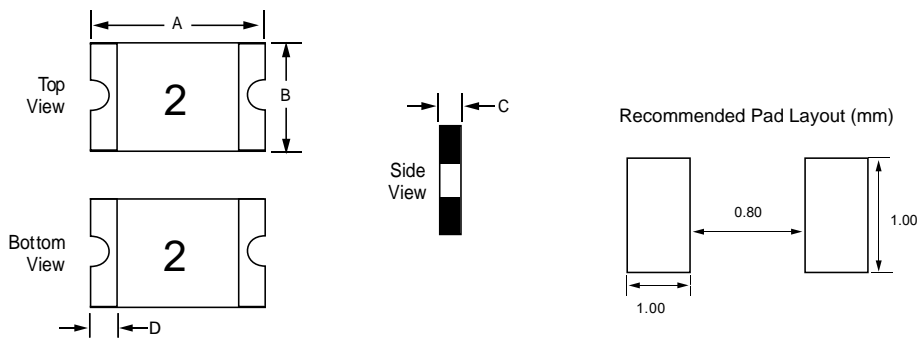
Recommended reflow methods: IR, hot air oven, nitrogen oven
 Devices can be cleaned using standard industry methods and solvents.

NOTE:

If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Caution: Operation beyond the rated voltage or current may result in rupture electrical arcing or flame

Dimensions



| Part Number | A | | B | | C | | D |
|-------------|------|------|------|------|------|------|------|
| | Min | Max | Min | Max | Min | Max | Min |
| SRF0603P020 | 1.45 | 1.85 | 0.65 | 1.05 | 0.40 | 1.00 | 0.15 |

Packaging Options

| Part Number | Quantity |
|-------------|----------|
| SRF0603P020 | 4,000pcs |

Reel packaging per EIA -481 -1 standard

© 2021 PROSEMI Inc. All Rights Reserved.
 Specifications and features are subject to change without notice.
www.prosemitech.com

The PROSEMI logo, and all other PROSEMI trademarks are the property of PROSEMI Inc. All other trademarks are the property of their respective owners.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Resettable Fuses - PPTC](#) category:

Click to view products by [PROSEMI](#) manufacturer:

Other Similar products are found below :

[RF0077-000](#) [RF2534-000](#) [RF3256-000](#) [RF3281-000](#) [RF3301-000](#) [RF3344-000](#) [RF3382-000](#) [SMD125-2](#) [RF2171-000](#) [RF2531-000](#) [RF2873-000](#) [RF3060-000](#) [TR600-150Q-B-0.5-0.130](#) [RXE090](#) [5E4795/04-1502](#) [TRF250-080T-B-1.0-0.125](#) [SMD100-2](#) [NIS5452MT1TXG](#) [NIS5431MT1TXG](#) [SMD250-2](#) [0ZCM0001FF2G](#) [0ZCM0003FF2G](#) [0ZCM0004FF2G](#) [BK60-017-DZ-E0.6](#) [F95456-000](#) [LVR100S](#) [RS30-090](#) [RS30-600](#) [RS30-700](#) [RS30-800](#) [RS30-900](#) [RS60RB-005](#) [RS60RB-010](#) [RS60RB-020](#) [RS60RB-025](#) [RS60RB-050](#) [RS60RB-075](#) [RS60RB-160](#) [SMD1206-300C-12V](#) [SB250-145](#) [SB250-030](#) [SB250-040](#) [SB250-200](#) [SB250-600](#) [SMD0805-005-24V](#) [SMD0805-050-16V](#) [SMD1210-005-60V](#) [SMD0805-005](#) [R60-375](#) [SMD0805K110SF6V](#)