

Surface-Mount Devices | 1812 Size

SRF1812 Series

PTC Resettable Fuses

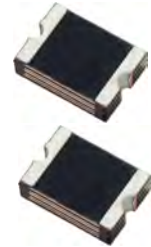
Features

- Resettable over current and over temperature protection
- Small size of 1812
- Fast time-to-trip
- Small footprint
- RoHS complaint
- Low resistance



Applications

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



Electrical Characteristics

Part Number	I_H (A)	I_T (A)	V_{max} (V)	I_{max} (A)	Time to Trip		P_{dtyp} (W)	R_{min} (Ω)	$R1_{max}$ (Ω)
					(A)	(Sec.)			
SRF1812P200/12	2.0	4.0	12	100	8.0	1.0	0.8	0.02	0.12

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_{dtyp} = 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.

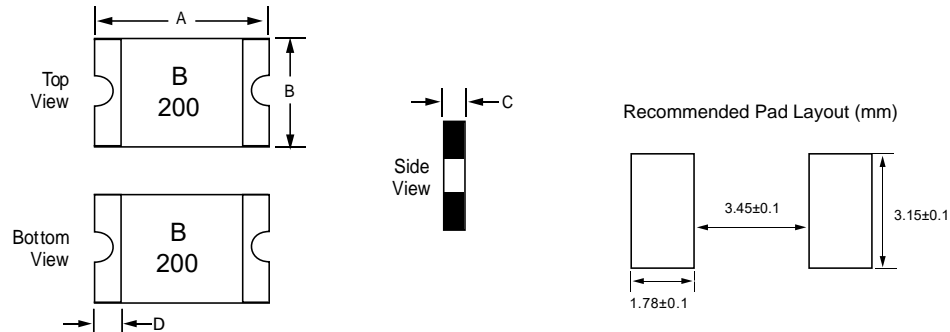
**Value specified is determined by using the PWB with 0.030" *1.5oz copper traces.
Caution: Operation beyond the specified rating may result in damage and possible arcing and flame.**

Thermal Derating Chart

Hold Current (A)

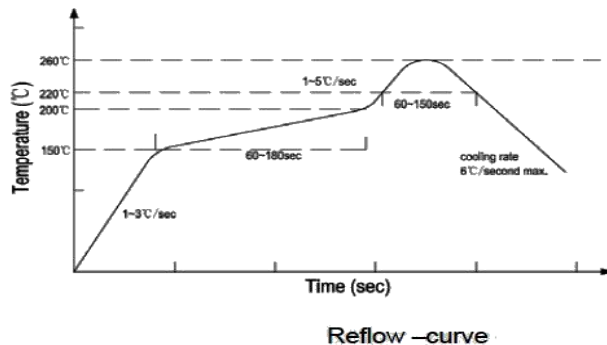
Part Number	Ambient Operating Temperature								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
SRF1812P200/12	2.88	2.61	2.25	2.00	1.80	1.66	1.45	1.09	0.80

Dimensions



Part Number	A		B		C		D
	Min	Max	Min	Max	Min	Max	
SRF1812P200/12	4.37	4.73	3.07	3.41	0.60	1.30	0.30

Solder Reflow Recommendation



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

Packaging Options

Part Number	Quantity
SRF1812P200/12	1,500pcs

Reel packaging per EIA-481-1 standard

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