Slow-Blow Chip Fuses

Available in industry standard 1206 and 0603 chip sizes, Raychem slow-blow chip fuses help provide overcurrent protection on systems that experience large and frequent current surges as part of their normal operation.

The Raychem slow-blow chip fuse's monolithic, multilayer design helps provide some of the highest current ratings available in the 1206 and 0603 footprints and enhances high-temperature performance in a wide range of circuit protection designs. The devices' small size, high reliability and strong arc suppression characteristics make them suitable for overcurrent protection of power supplies, capacitor filter banks, LCD (Liquid Crystal Display) backlight inverters, electric motors and portable electronics.

Benefits

- Time-delayed design prevents nuisance openings in pulsed and high inrush current applications
- Small size with high-current ratings
- Strong arc suppression characteristics

Features

- RoHS compliant
- Halogen free
  (refers to: Br≤900ppm, Cl≤900ppm, Br+Cl≤1500ppm)
- Monolithic multilayer design
- High-temperature performance
- -55°C to +125°C operating temperature range

Applications

- Small motors systems
- Portable electronics
- Input power ports
- Power over Ethernet (POE)
- Test equipment
- POL Converter Protection
- Computer drives
- Displays
- Printers

Table FS1 Clear Time Characteristics for Slow-Blow Chip Fuses

0603SFS Series

% of rated current	Clear time at 25°C	
100%	4 hours (min.)	
200%	1 second (min.)	120 seconds (max.)
300%	0.1 second (min.)	3 seconds (max.)
800%(1.0A-1.5A)	0.0005 second (min.)	0.05 seconds (max.)
800%(2.0A-5.0A)	0.001 second (min.)	0.05 seconds (max.)

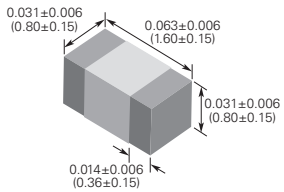
1206SFS Series

% of rated current	Clear time at 25°C	
100%	4 hours (min.)	
200%	1 second (min.)	120 seconds (max.)
300%	0.1 second (min.)	3 seconds (max.)
800%(1.0A-1.5A)	0.0016 second (min.)	0.05 seconds (max.)
800%(2.0A-8.0A)	0.002 second (min.)	0.05 seconds (max.)

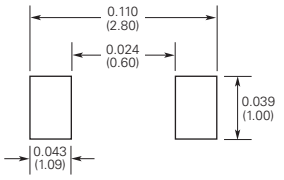
Table FS2 Typical Electrical Characteristics, Dimensions and Recommended Pad Layout for Slow-Blow Chip Fuses

0603 (1608mm) Slow-Blow Chip Fuses

Shape and Dimensions
Inch (mm)



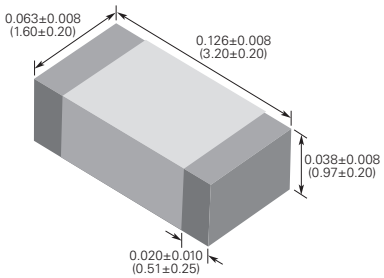
Recommended Pad Layout
Inch (mm)



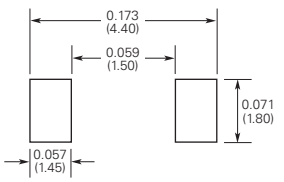
Part Number	Typical Electrical Characteristics: Rated Current (A)	Nominal Cold DCR (Ω)*	Nominal I²t (A²sec)†	Max. Interrupt Ratings: Voltage (V_{DC})	Current (A)
0603SFS100F/32	1.0	0.200	0.093	32	50
0603SFS150F/32	1.5	0.100	0.18	32	50
0603SFS200F/32	2.0	0.052	0.32	32	50
0603SFS250F/32	2.5	0.041	0.63	32	50
0603SFS300F/32	3.0	0.031	0.87	32	50
0603SFS350F/32	3.5	0.021	1.20	32	50
0603SFS400F/32	4.0	0.017	2.30	32	50
0603SFS450F/32	4.5	0.015	2.70	32	50
0603SFS500F/32	5.0	0.013	3.20	32	50

1206 (3216mm) Slow-Blow Chip Fuses

Shape and Dimensions
Inch (mm)



Recommended Pad Layout
Inch (mm)



Part Number	Typical Electrical Characteristics: Rated Current (A)	Nominal Cold DCR (Ω)*	Nominal I²t (A²sec)†	Max. Interrupt Ratings: Voltage (V_{DC})	Current (A)
1206SFS100F/63	1.0	0.360	0.11	63	50
1206SFS125F/63	1.25	0.200	0.22	63	50
1206SFS150F/63	1.5	0.150	0.23	63	50
1206SFS200F/63	2.0	0.082	0.63	63	50
1206SFS250F/32	2.5	0.070	0.90	32	50
1206SFS300F/32	3.0	0.032	1.20	32	50
1206SFS350F/32	3.5	0.028	1.60	32	50
1206SFS400F/32	4.0	0.024	2.20	32	50
1206SFS450F/32	4.5	0.020	3.60	32	50
1206SFS500F/32	5.0	0.016	5.30	32	50
1206SFS550F/24	5.5	0.014	6.40	24	50
1206SFS600F/24	6.0	0.011	8.50	24	60
1206SFS700F/24	7.0	0.010	10.00	24	60
1206SFS800F/24	8.0	0.009	16.90	24	60

* Measured at ≤10% of rated current and 25°C ambient temperature.
† Melting I²t at 0.001 sec clear time.

RoHS Compliant, ELV Compliant HF Halogen Free