

# SURFACE-MOUNT FUSES

## Pulse Tolerant Chip Fuses

Pulse Tolerant Chip Fuses have high inrush current withstand capability and provide overcurrent protection for DC power systems. These devices combine a silver fusing element and monolithic, multilayer design to provide strong arc suppression characteristics.

These RoHS-compliant surface-mount devices can help facilitate the development of more reliable, high-performance consumer electronics such as laptops, multimedia devices, cell phones and other portable electronics.



### BENEFITS

- High inrush current withstanding capability
- Ceramic monolithic structure
- Silver fusing element and silver termination with nickel and tin plating
- Temperature stability
- Strong arc suppression characteristics

### FEATURES

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

### APPLICATIONS

- Laptops
- Digital cameras
- Cell phones
- Printers
- DVD players
- Portable electronics
- Game systems
- LCD monitors
- Scanners

# Surface Mount Fuses

## Pulse Tolerant Chip Fuses

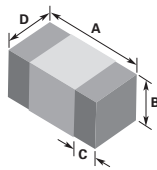
### Table FP1 – ClearTime Characteristics

% of Rated Current		Clear Time at 25°C	
100%		4 hrs (min)	—
200%		1 s (min)	60 s (max)
1000%		0.0002 s (min)	0.02 s (max)

### Table FP2 – Typical Electrical Characteristics and Dimensions

#### 0603 (1608 mm) Pulse Tolerant Chip Fuses

Shape and Dimensions  
mm (in)

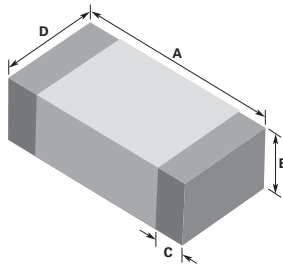


	A		B		C		D	
	Min	Max	Min	Max	Min	Max	Min	Max
mm	1.45	1.75	0.65	0.95	0.21	0.51	0.65	0.95
in	(0.057)	(0.069)	(0.026)	(0.037)	(0.008)	(0.020)	(0.026)	(0.037)

Part Number	Typical Electrical Characteristics			Max Interrupt Ratings	
	Rated Current (A)	Nominal Cold DCR (Ω)*	Nominal I <sup>2</sup> t (A <sup>2</sup> sec) <sup>†</sup>	Voltage (V <sub>DC</sub> )	Current (A)
0603SFP100F/32-2	1.0	0.210	0.08	32	50
0603SFP150F/32-2	1.5	0.101	0.11	32	50
0603SFP200F/32-2	2.0	0.057	0.24	32	50
0603SFP250F/32-2	2.5	0.042	0.56	32	50
0603SFP300F/32-2	3.0	0.030	0.72	32	50
0603SFP350F/32-2	3.5	0.022	1.10	32	50
0603SFP400F/32-2	4.0	0.018	2.08	32	50
0603SFP450F/32-2	4.5	0.014	2.63	32	50
0603SFP500F/32-2	5.0	0.013	3.25	32	50
0603SFP600F/32-2	6.0	0.010	4.00	32	70

#### 1206 (3216 mm) Pulse Tolerant Chip Fuses

Shape and Dimensions  
mm (in)



	A		B		C		D	
	Min	Max	Min	Max	Min	Max	Min	Max
mm	3.00	3.40	0.77	1.17	0.26	0.76	1.40	1.80
in	(0.118)	(0.134)	(0.030)	(0.046)	(0.010)	(0.030)	(0.055)	(0.071)

Part Number	Typical Electrical Characteristics			Max Interrupt Ratings	
	Rated Current (A)	Nominal Cold DCR (Ω)*	Nominal I <sup>2</sup> t (A <sup>2</sup> sec) <sup>†</sup>	Voltage (V <sub>DC</sub> )	Current (A)
1206SFP100F/63-2	1.0	0.340	0.11	63	50
1206SFP150F/63-2	1.5	0.150	0.33	63	50
1206SFP200F/63-2	2.0	0.090	0.80	63	50
1206SFP250F/32-2	2.5	0.070	1.19	32	50
1206SFP300F/32-2	3.0	0.035	1.35	32	50
1206SFP350F/32-2	3.5	0.029	1.84	32	50
1206SFP400F/32-2	4.0	0.023	2.74	32	50
1206SFP450F/32-2	4.5	0.021	3.20	32	50
1206SFP500F/32-2	5.0	0.017	5.50	32	50
1206SFP600F/24-2	6.0	0.013	12.50	24	80
1206SFP700F/24-2	7.0	0.010	30.00	24	80
1206SFP800F/24-2	8.0	0.009	60.00	24	80

\* Measured at ≤10% of rated current and 25°C ambient temperature.  
<sup>†</sup> Melting I<sup>2</sup>t at 0.001 sec clear time.

# Surface Mount Fuses

## Pulse Tolerant Chip Fuses

### Figures FP1-FP4 – Family Performance Curves

Figure FP1

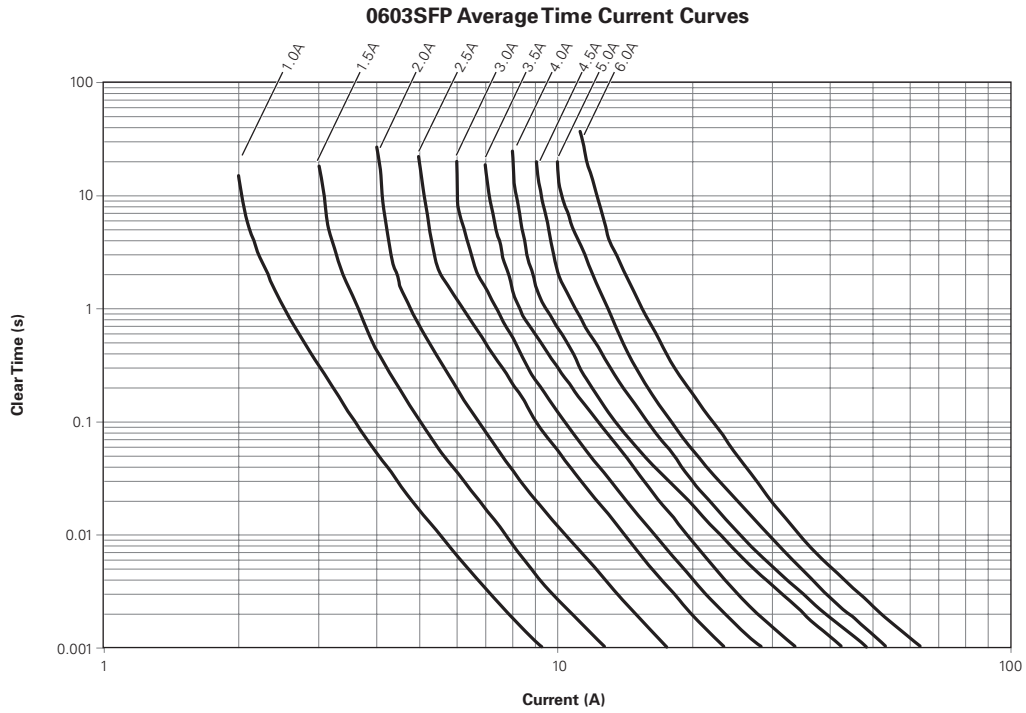
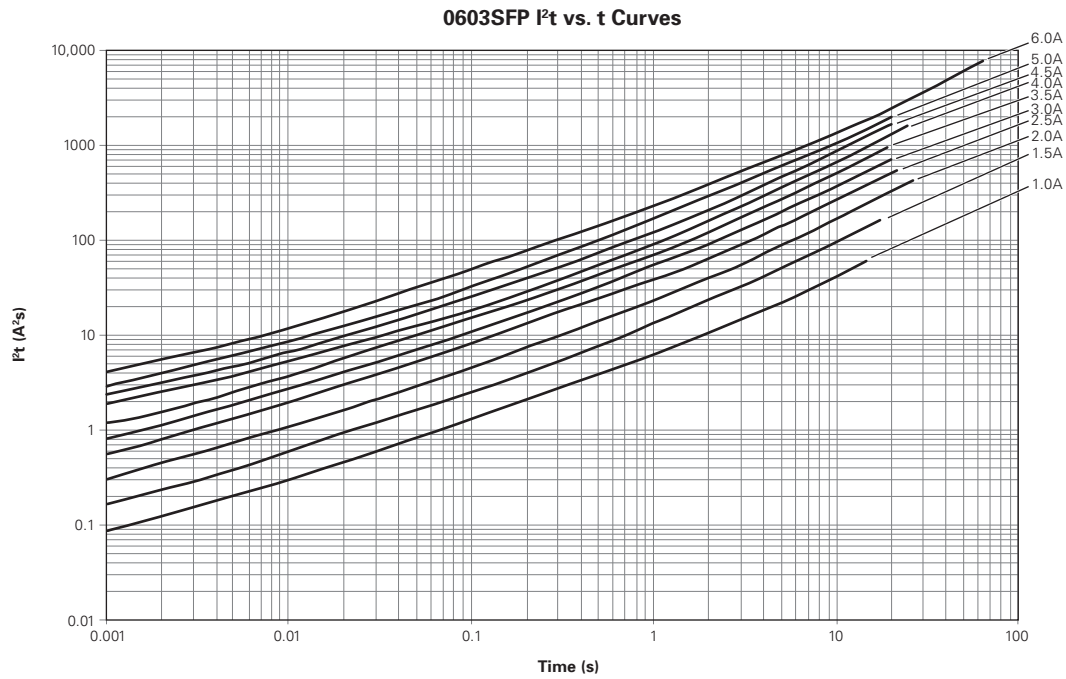


Figure FP2



# Surface Mount Fuses

## Pulse Tolerant Chip Fuses

### Figures FP1-FP4 — Family Performance Curves

(Cont'd)

Figure FP3

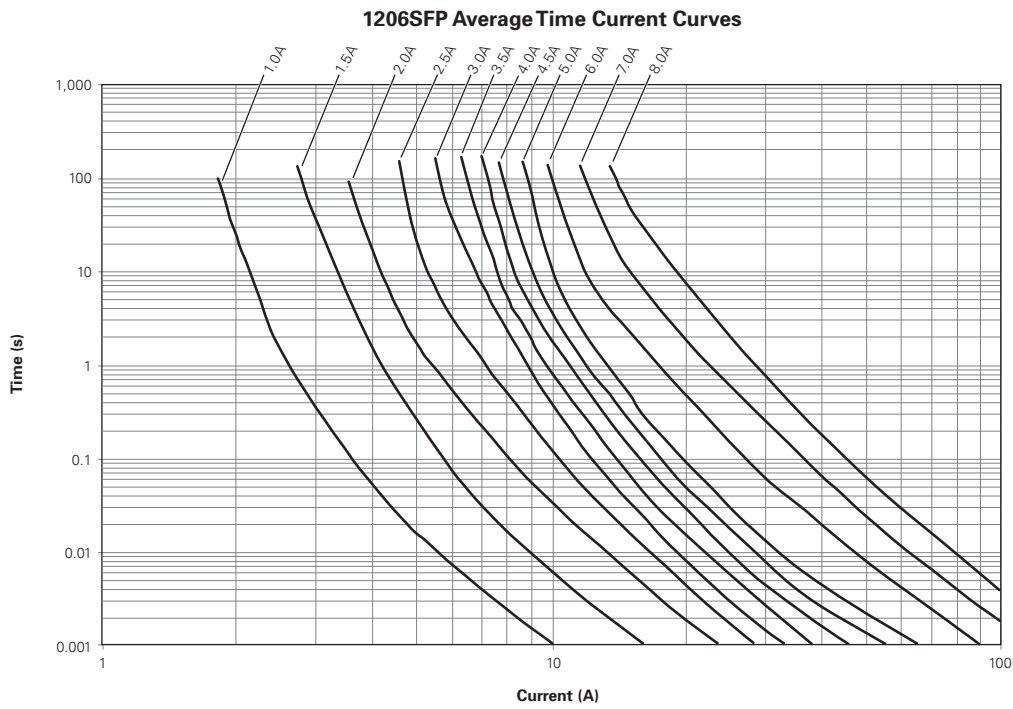
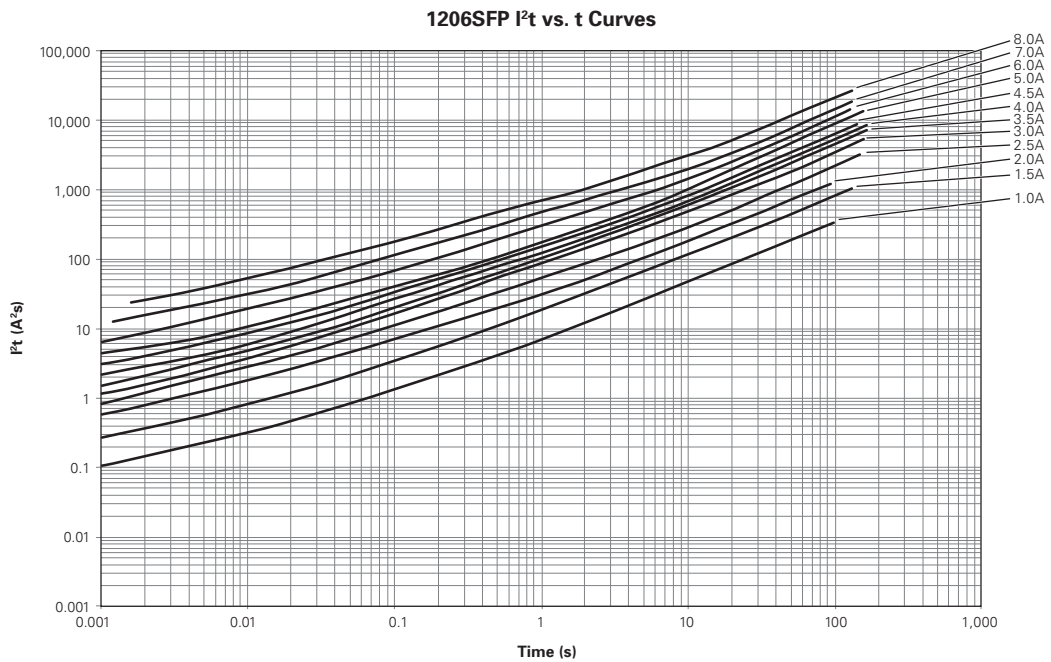


Figure FP4



Note: Curves are nominal.

## Surface Mount Fuses

### Pulse Tolerant Chip Fuses

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