

# 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≤900ppm, Cl≤900ppm, Br+Cl≤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

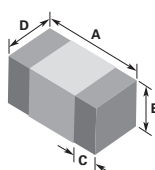
Table FP1 — ClearTime Characteristics

| % of Rated Current |                | ClearTime 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)

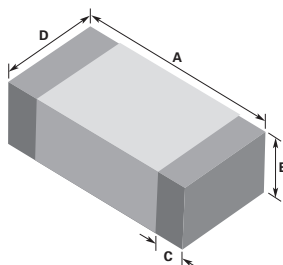


|    | A       |         | B       |         | C       |         | D       |         |
|----|---------|---------|---------|---------|---------|---------|---------|---------|
|    | Min     | Max     | Min     | Max     | Min     | Max     | Min     | Max     |
| mm | 1.45    | 1.75    | 0.65    | 0.95    | 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 ( $\Omega$ )* | Nominal $I^2t$ (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 ( $\Omega$ )* | Nominal $I^2t$ (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  $\leq 10\%$  of rated current and 25°C ambient temperature.

† Melting  $I^2t$  at 0.001 sec clear time.

Figures FP1-FP4 — Family Performance Curves

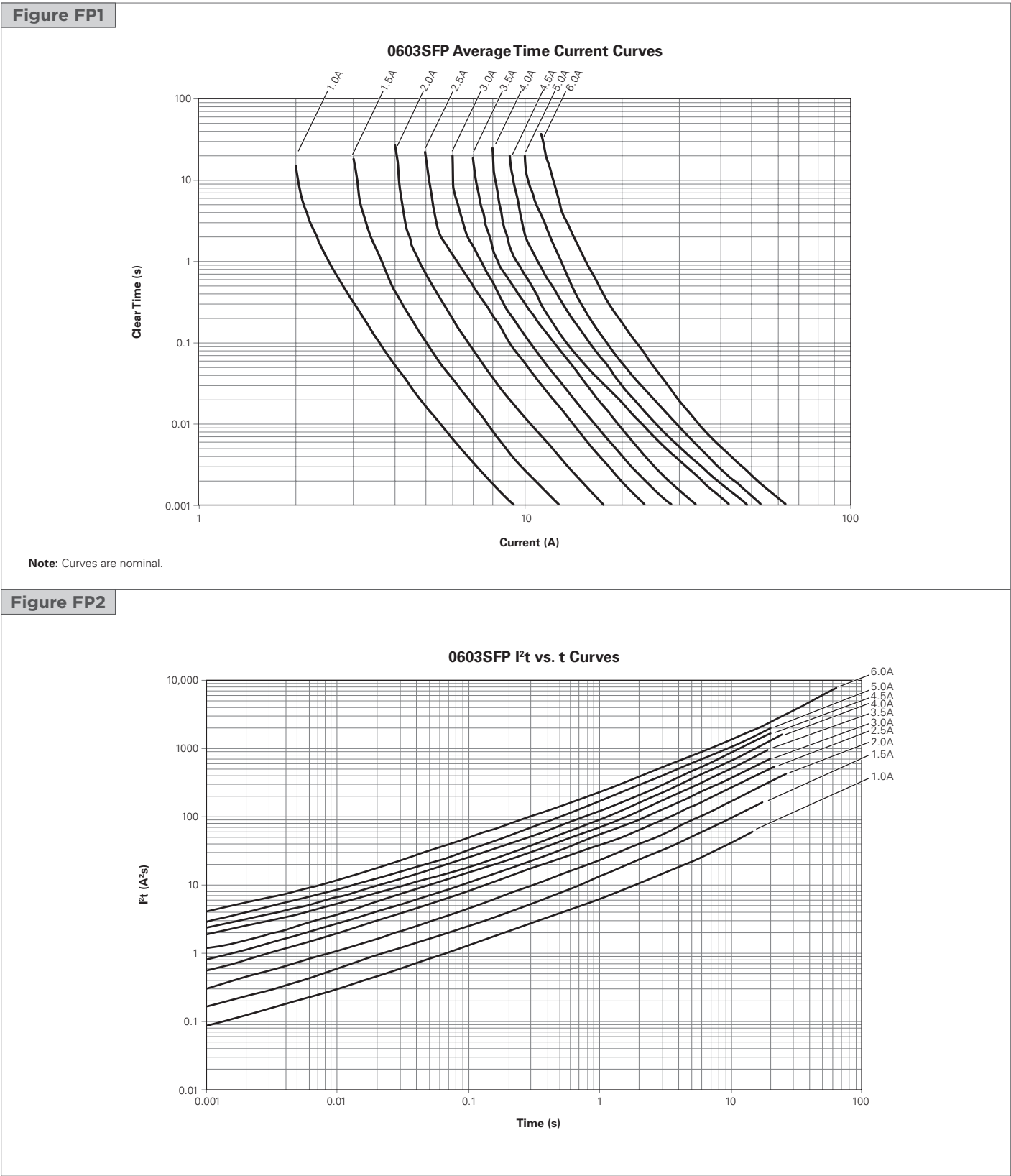


Figure FP3

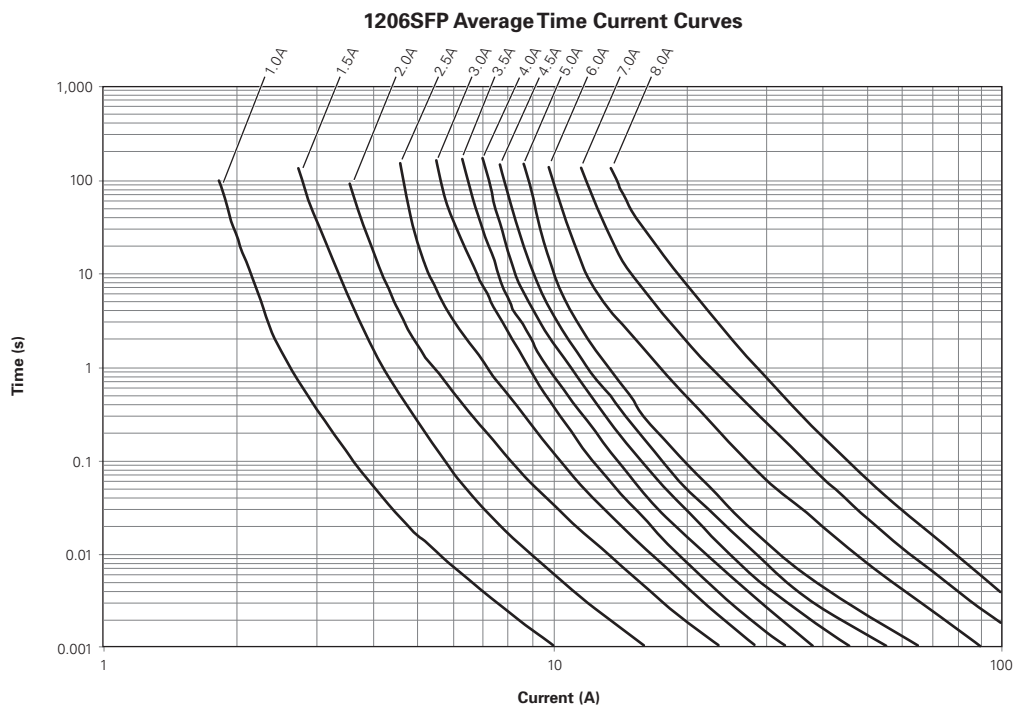
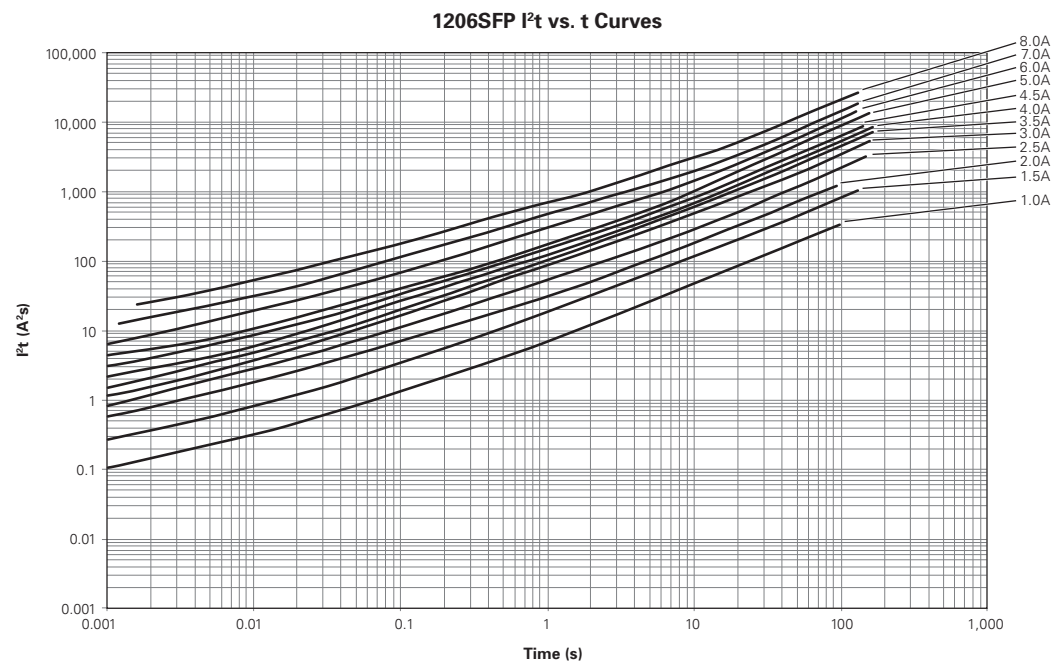


Figure FP4



**Note:** Curves are nominal.

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На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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