



Surface-mount Fuses Pulse Tolerant Chip Fuses



Pulse Tolerant chip fuses has high inrush current withstand capability and provide overcurrent protection on DC power systems. Silver fusing element, monolithic and multilayer design provides strong arc suppression characteristics.

These RoHS-compliant surface-mount devices 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
- Excellent 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

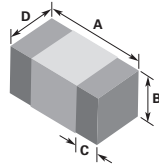
- | | | |
|-------------------|------------------------|----------------|
| • Laptops | • Printers | • Game systems |
| • Digital cameras | • DVD players | • LCD monitors |
| • Cell phones | • Portable electronics | • Scanners |

Table FP1 Clear Time Characteristics for Pulse Tolerant Chip Fuses

| % of rated current | Clear time at 25°C | |
|--------------------|----------------------|---------------------|
| 100% | 4 hours (min.) | |
| 200% | 1 seconds (min.) | 60 seconds (max.) |
| 1000% | 0.0002 second (min.) | 0.02 seconds (max.) |

Table FP2 Typical Electrical Characteristics and Dimensions for Pulse Tolerant Chip Fuses
0603 (1608 mm) Pulse Tolerant Chip Fuses

Shape and Dimensions
mm (Inch)

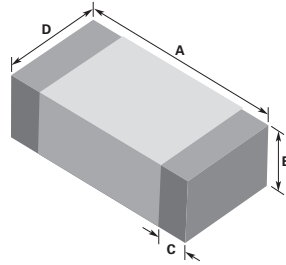


| | A | | B | | C | | D | |
|----|---------|---------|---------|---------|---------|---------|---------|---------|
| | Min | Max | Min | Max | Min | Max | Min | Max |
| mm | 1.45 | 1.75 | 0.65 | 0.95 | 0.21 | 0.51 | 0.65 | 0.95 |
| in | (0.057) | (0.069) | (0.026) | (0.037) | (0.008) | (0.020) | (0.026)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

| Part Number | Typical Electrical Characteristics | | | Max. Interrupt Ratings | |
|------------------|------------------------------------|-----------------------|--|----------------------------|-------------|
| | Rated Current (A) | Nominal Cold DCR (Ω)* | Nominal I ² t (A ² sec) [†] | Voltage (V _{DC}) | Current (A) |
| 0603SFP100F/32-2 | 1.0 | 0.210 | 0.080 | 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 |

1206 (3216 mm) Pulse Tolerant Chip Fuses

Shape and Dimensions
mm (Inch)



| | 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 ² t (A ² sec) [†] | Voltage (V _{DC}) | 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 |

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