Time-Lag Subminiature Fuse Radial Leaded





Description

RoHS Compliant

The product provides protection for printed circuit boards used in a large variety of applications that need fuses with time-delay, low breaking capacity. The sub-miniature device is constructed of a plastic cap and base with a tin plated copper lead wire. It offers excellent mounting characteristics and is 100% tested for cold resistance.

Applications

Its main applications are for consumer electronics, LED drivers, power supplies, battery chargers and controllers for industrial use.

Features

- Subminiature fuse with time delay, low breaking capacity
- Small, rectangular and leaded design minimizes board space and eliminates the need for additional mounting components
- Plastic cap / brown thermoplastic fuse body
- 0.6mm lead wires made of tin plated copper.
- · Protection against harmful over-currents in primary and secondary applications
- · Lead-free and Halogen-free
- Designed according to IEC 60127

Specifications

Operating Temperature : -55°C to +125°C Storage Conditions : +10°C to +60°C

Relative Humidity : ≤ 75% yearly average without dew, maximum 30 days at 95%

Vibration Resistance : 24 cycles at 15 min. each

10-60Hz at 0.75mm amplitude 60-2000Hz at 10g acceleration

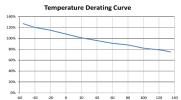
Electrical Characteristics

| Part Number | Amp Code | Rated Current | Max. Voltage | Max. Voltage Drop (mV) | Max. Power Dissipation (mW) | Nominal Melting l²t (A²sec) | Breaking Capacity |
|-------------|-------------|------------------|-----------------|------------------------------|-----------------------------------|-----------------------------------|--|
| MP001613 | 1100 | 1A | 400V AC | 140 | 500 | 6.7 | 100A @ 125V AC 100A @ 250V AC 50A or 10In @ 300V AC 160A @ 125V/250V AC 100A @ 277V/300V/400V AC |

Note:

- 1. Permissible continuous operating current is ≤100% at ambient temperature of 23°C (73.4°F)
- 2. The current values used for calculating I^2T should be within the standard range of 8ms \sim 10ms.

Temperature Derating Curve



Calculation for ideal fuse selection = $\frac{\text{Operating Current (A)}}{\text{Rating (\% \times 0.75)}}$

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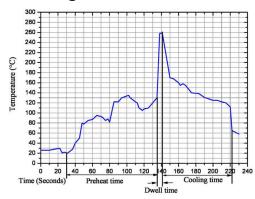
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Time vs Current Characteristics Table

| Time vs Current Characteristics: UL-248-14 | | | | | | | | | |
|--|------|-------|-----------|----------|------------|--|--|--|--|
| Rated Current | 150% | 210% | 275% | 400% | 1000% | | | | |
| 1A | >1h | <2min | 400ms-10s | 150ms-3s | 20ms-150ms | | | | |

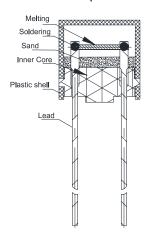
Soldering Parameters



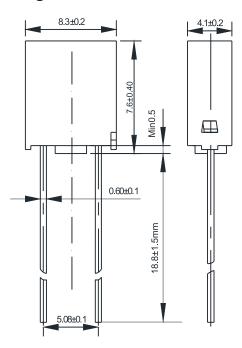
260°C = ≤5 sec (Wave Soldering) 350°C = ≤3 sec (Hand Soldering) Soldering Peak: 260°C = 10 sec (IEC 60068-20)

Construction and Mechanical Characteristics

Construction (cross section)



Diagram



Dimensions : Millimetres

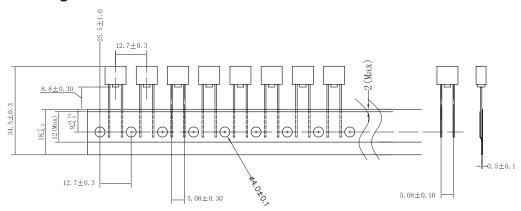
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Packing Information



Part Number Table

| Description | Part Number |
|---|-------------|
| Subminiature Fuse, Time-Lag, 1A, 400V AC, Radial Leaded | MP001613 |

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