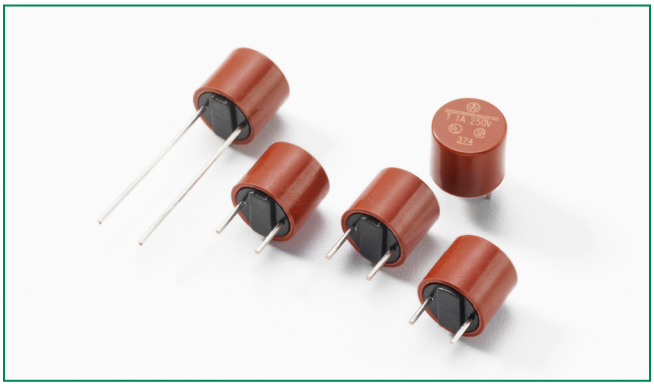
# 374 Series, TR5®, Time-Lag Fuse



## Agency Approvals

| Agency | Agency File Number | Ampere Range |
|---|---|---|
| UL | File number: E 67006 | 50mA - 6.3A |
| CSA | Certification: 51378 | 50mA - 6.3A |
| cULus | File number: E 67006 | 8A - 10A |

## Description

The TR5® 374 Series are time–Lag 250V rated fuses, that are designed in accordance to UL 248–14.

## Features

- Lead–free
- Reduced PCB space requirements
- Direct solderable or plug–in versions
- Internationally approved
- Low internal resistance
- Shock safe casing
- Vibration resistant
- Halogen free
- Available from 50mA to 10A

## Applications

- Battery Chargers
- Consumer Electronics
- Power supplies
- Industrial Controllers

## Electrical Characteristics

| % of Ampere Rating | Opening Time |
|---|---|
| 200% | 60 Seconds, |

## Additional Information

Datasheet | Resources | Samples

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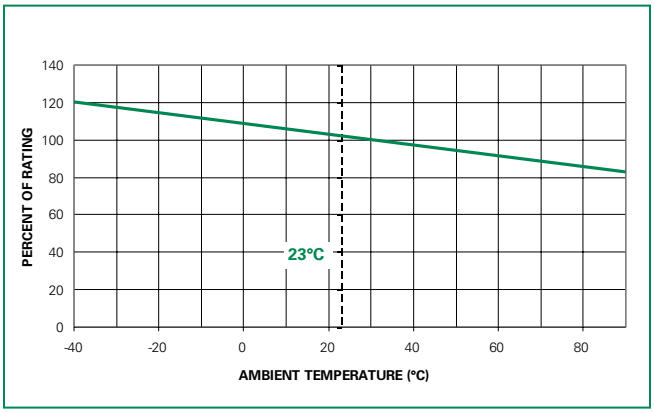
## Electrical Characteristics

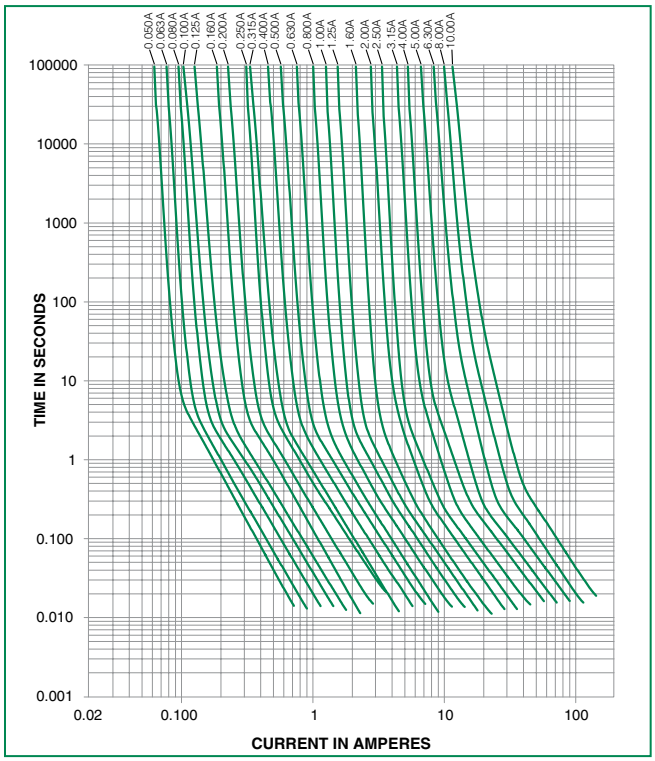
| Amp Code | Rated Current | Voltage Rating | Breaking Capacity | Voltage Drop $1.0 \times I_N$ max. (mV) | Power Dissipation $1.0 \times I_N$ max. (mW) | Melting Integral $10 \times I_N$ min. ($A^2s$) | Agency Approvals | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | UL® | CSA® | cULus |
| 0050 | 50mA | 250V | 50 A / 250 VAC 50-60 Hz cos φ = 1.0 | 900 | 45 | 0.0056 | x | x | |
| 0063 | 63mA | 250V | | 800 | 50 | 0.009 | x | x | |
| 0080 | 80mA | 250V | | 700 | 55 | 0.014 | x | x | |
| 0100 | 100mA | 250V | | 600 | 60 | 0.025 | x | x | |
| 0125 | 125mA | 250V | | 550 | 70 | 0.044 | x | x | |
| 0160 | 160mA | 250V | | 480 | 80 | 0.058 | x | x | |
| 0200 | 200mA | 250V | | 390 | 80 | 0.1 | x | x | |
| 0250 | 250mA | 250V | | 350 | 90 | 0.17 | x | x | |
| 0315 | 315mA | 250V | | 300 | 95 | 0.26 | x | x | |
| 0400 | 400mA | 250V | | 250 | 100 | 0.32 | x | x | |
| 0500 | 500mA | 250V | | 220 | 110 | 0.6 | x | x | |
| 0630 | 630mA | 250V | | 210 | 135 | 0.75 | x | x | |
| 0800 | 800mA | 250V | | 160 | 130 | 0.98 | x | x | |
| 1100 | 1.00A | 250V | | 155 | 155 | 2.1 | x | x | |
| 1125 | 1.25A | 250V | | 145 | 185 | 3.2 | x | x | |
| 1160 | 1.60A | 250V | | 130 | 210 | 4.5 | x | x | |
| 1200 | 2.00A | 250V | | 125 | 250 | 7.5 | x | x | |
| 1250 | 2.50A | 250V | | 120 | 300 | 14 | x | x | |
| 1315 | 3.15A | 250V | | 110 | 350 | 22 | x | x | |
| 1400 | 4.00A | 250V | | 100 | 400 | 36 | x | x | |
| 1500 | 5.00A | 250V | | 95 | 475 | 59 | x | x | |
| 1630 | 6.30A | 250V | | 90 | 570 | 110 | x | x | |
| 1800 | 8.00A[1] | 250V | | 80 | 1000 | 150 | | | x |
| 2100 | 10.00A[1] | 250V | | 90 | 1250 | 280 | | | x |

Note: 1.00 means the number one with two decimal places. 1,000 means the number one thousand.

## Temperature Rerating Curve




## Average Time Current Curves





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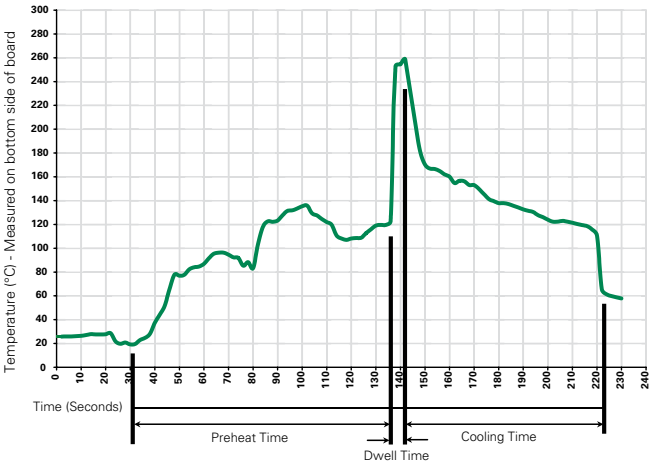
# Radial Lead Fuses

TR5® > Time Lag > 374 Series

## Soldering Parameters - Wave Soldering




**Recommended Process Parameters:**

| Wave Parameter | Lead-Free Recommendation |
|---|---|
| Preheat: (Depends on Flux Activation Temperature) | (Typical Industry Recommendation) |
| Temperature Minimum: | 100° C |
| Temperature Maximum: | 150° C |
| Preheat Time: | 60-180 seconds |
| Solder Pot Temperature: | 260° C Maximum |
| Solder Dwell Time: | 2-5 seconds |

**Recommended Hand-Solder Parameters:**

Solder Iron Temperature: 350° C +/- 5°C
Heating Time: 5 seconds max.

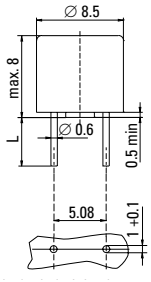
**Note: These devices are not recommended for IR or Convection Reflow process.**

## Product Characteristics

| | |
|---|---|
| **Materials** | Base/Cap: Brown Thermoplastic Polyamide PA 6.6, UL 94 V-0<br>Round Pins: Copper, Tin-plated |
| **Lead Pull Strength** | 10 N (EN 60068-2-21) |
| **Solderability** | 260°C, ≤ 3s. (Wave)<br>350°C, ≤ 1s. (Soldering Iron) |
| **Soldering Heat Resistance** | 260°C, 10s. (IEC 60068-2-20)<br>350°C, 3s. (Soldering Iron) |

| | |
|---|---|
| **Operating Temperature** | -40°C to +85°C (consider de-rating) |
| **Climatic Category** | -40°C/+85°C/21 days<br>(EN 60068-1,-2-1,-2-2,-2-78) |
| **Stock Conditions** | +10°C to +60°C<br>RH ≤ 75% yearly average, without dew, maximum value for 30 days-95% |
| **Vibration Resistance** | 24 cycles at 15 min. each<br>(EN 60068-2-6)<br>10 - 60 Hz at 0.75 mm amplitude<br>60 - 2000 Hz at 10G's acceleration |

## Dimensions




Holes in PCB

Long Leads (L=18.8mm)
Short Leads (L=4.3mm)

## Part Numbering System

**374 xxxx 0000**

**Series**

**Amp Code**
Refer to Amp Code column of Electrical Characteristics Table

**Packaging Code**
0000 Tape/Ammopack (1,000 pcs.)
0410 Short Leads - Bulk (1,000 pcs.)
0430 Short Leads - Bulk (200 pcs.)

## Packaging

| Packaging Option | Packaging Specification | Quantity | Quantity & Packaging Code | Taping Width |
|---|---|---|---|---|
| **374 Series** | | | | |
| Tape & Ammopack | N/A | 1,000 | 0000 | N/A |
| Short Leads | N/A | 1,000 | 0410 | N/A |
| Short Leads | N/A | 200 | 0430 | N/A |

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