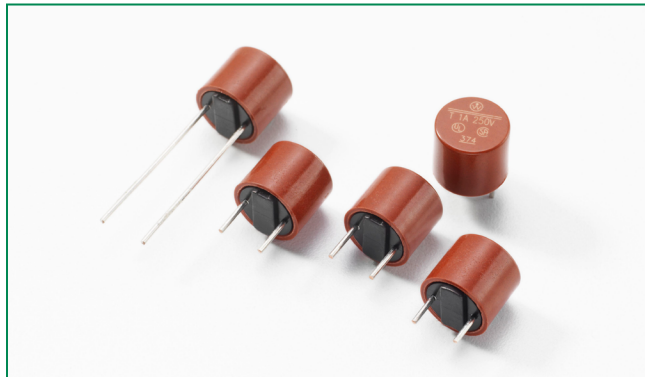


# Radial Lead Fuses

TR5® > Time-Lag Fuse > 374 Series

## 374 Series, TR5 Fuse, Time Lag



### Agency Approvals

| Agency                                                                            | Agency File Number | Ampere Range  |
|-----------------------------------------------------------------------------------|--------------------|---------------|
|  | 51378              | 0.050A - 6.3A |
|  | E67006             | 0.050A - 10A  |

### Description

The TR5® 374 Series fuses are Time-Lag 250V rated and designed in accordance to UL 248-14.

### Features

- Halogen free, Lead-free and RoHS compliant
- Reduced PCB space requirements
- Direct solderable or plug-in versions
- Internationally approved
- Low internal resistance
- Shock safe casing
- Vibration resistant
- Available from 0.050A 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**

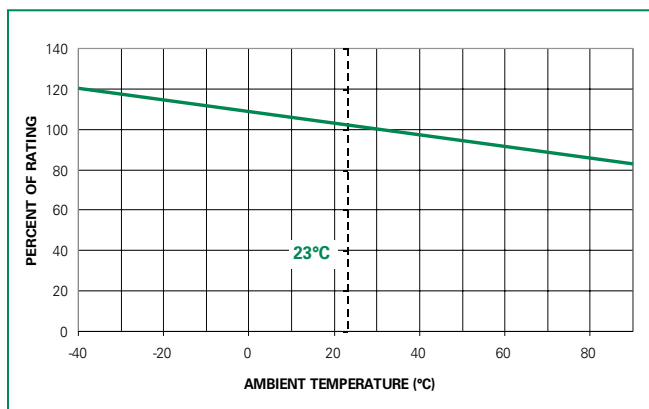
### Electrical Characteristics

| Amp Code | Rated Current | Voltage Rating | Breaking Capacity | Nominal Cold Resistance (Ohms) | 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 <sup>2</sup> s) | Agency Approvals |       |
|----------|---------------|----------------|-------------------|--------------------------------|-----------------------------------------|----------------------------------------------|----------------------------------------------------------|------------------|-------|
|          |               |                |                   |                                |                                         |                                              |                                                          | SP®              | cULus |
| 0050     | 50mA          | 250V           | 50A@250VAC        | 12.5000                        | 900                                     | 45                                           | 0.011                                                    | x                | x     |
| 0063     | 63mA          | 250V           |                   | 7.9200                         | 800                                     | 50                                           | 0.015                                                    | x                | x     |
| 0080     | 80mA          | 250V           |                   | 5.8500                         | 700                                     | 55                                           | 0.025                                                    | x                | x     |
| 0100     | 100mA         | 250V           |                   | 3.8400                         | 600                                     | 60                                           | 0.039                                                    | x                | x     |
| 0125     | 125mA         | 250V           |                   | 2.9000                         | 550                                     | 70                                           | 0.052                                                    | x                | x     |
| 0160     | 160mA         | 250V           |                   | 1.8300                         | 480                                     | 80                                           | 0.083                                                    | x                | x     |
| 0200     | 200mA         | 250V           |                   | 1.2000                         | 390                                     | 80                                           | 0.146                                                    | x                | x     |
| 0250     | 250mA         | 250V           |                   | 0.7600                         | 350                                     | 90                                           | 0.313                                                    | x                | x     |
| 0315     | 315mA         | 250V           |                   | 0.5450                         | 300                                     | 95                                           | 0.298                                                    | x                | x     |
| 0400     | 400mA         | 250V           |                   | 0.3510                         | 250                                     | 100                                          | 0.552                                                    | x                | x     |
| 0500     | 500mA         | 250V           |                   | 0.2600                         | 220                                     | 110                                          | 0.875                                                    | x                | x     |
| 0630     | 630mA         | 250V           |                   | 0.1700                         | 210                                     | 135                                          | 1.191                                                    | x                | x     |
| 0800     | 800mA         | 250V           |                   | 0.1250                         | 160                                     | 130                                          | 2.112                                                    | x                | x     |
| 1100     | 1.00A         | 250V           |                   | 0.1050                         | 155                                     | 155                                          | 3.100                                                    | x                | x     |
| 1125     | 1.25A         | 250V           |                   | 0.0800                         | 145                                     | 185                                          | 4.453                                                    | x                | x     |
| 1160     | 1.60A         | 250V           |                   | 0.0540                         | 130                                     | 210                                          | 6.272                                                    | x                | x     |
| 1200     | 2.00A         | 250V           |                   | 0.0395                         | 125                                     | 250                                          | 11.800                                                   | x                | x     |
| 1250     | 2.50A         | 250V           |                   | 0.0300                         | 120                                     | 300                                          | 18.125                                                   | x                | x     |
| 1315     | 3.15A         | 250V           |                   | 0.0227                         | 110                                     | 350                                          | 29.966                                                   | x                | x     |
| 1400     | 4.00A         | 250V           |                   | 0.0170                         | 100                                     | 400                                          | 56.000                                                   | x                | x     |
| 1500     | 5.00A         | 250V           |                   | 0.0122                         | 95                                      | 475                                          | 87.500                                                   | x                | x     |
| 1630     | 6.30A         | 250V           |                   | 0.0094                         | 90                                      | 570                                          | 144.869                                                  | x                | x     |
| 1800     | 8.00A         | 250V           |                   | 0.0060                         | 80                                      | 1000                                         | 220.800                                                  |                  | x     |
| 2100     | 10.00A        | 250V           |                   | 0.0050                         | 90                                      | 1250                                         | 430.000                                                  |                  | x     |

Notes:

- 1) 1.00 means the number one with two decimal places. 1,000 means the number one thousand.
- 2) Resistance is measured at 10% of rated current, 25°C.

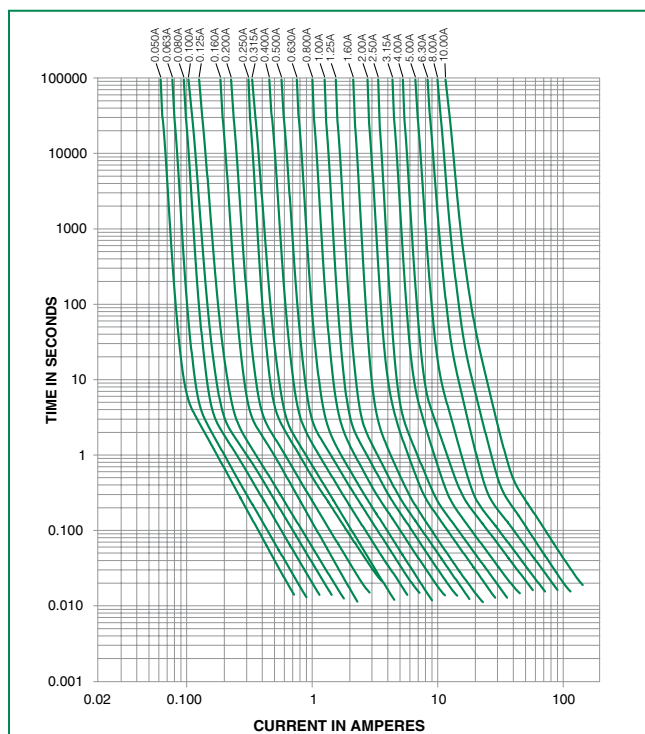
### Temperature Re-rating Curve



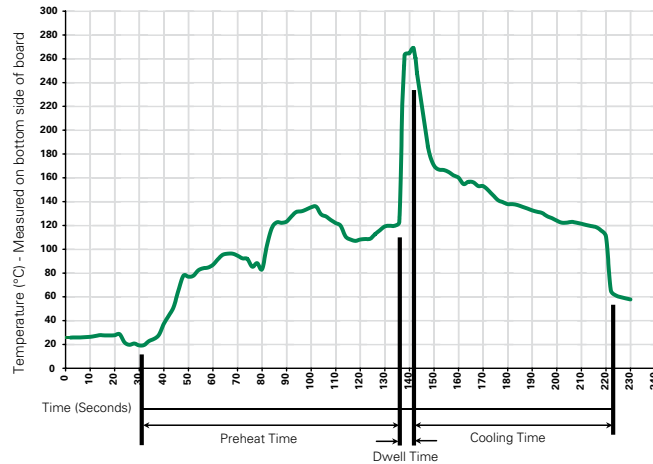
Note:

1. Derating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

### Average Time Current Curves



## Soldering Parameters - Wave Soldering



## Recommended Process Parameters:

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

## Recommended Hand-Solder Parameters:

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

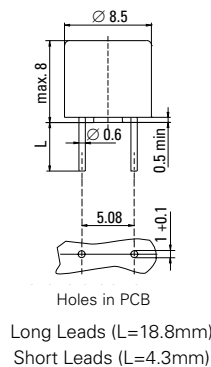
**Note:** These devices are not recommended for IR or Convection Reflow process.

## Product Characteristics

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

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

## Dimensions



## Part Numbering System

|                       |                                                                                                               |             |
|-----------------------|---------------------------------------------------------------------------------------------------------------|-------------|
| <b>374</b>            | <b>xxxx</b>                                                                                                   | <b>0000</b> |
| <b>Series</b>         |                                                                                                               |             |
| <b>Amp Code</b>       |                                                                                                               |             |
|                       | Refer to Amp Code column of Electrical Characteristics Table                                                  |             |
| <b>Packaging Code</b> |                                                                                                               |             |
|                       | 0000 Tape/Ammopack (1,000 pcs.)<br>0410 Short Leads - Bulk (1,000 pcs.)<br>0430 Short Leads - Bulk (200 pcs.) |             |

## Packaging

| Packaging Option  | Packaging Specification | Quantity | Quantity & Packaging Code | Taping Width |
|-------------------|-------------------------|----------|---------------------------|--------------|
| <b>374 Series</b> |                         |          |                           |              |
| 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          |