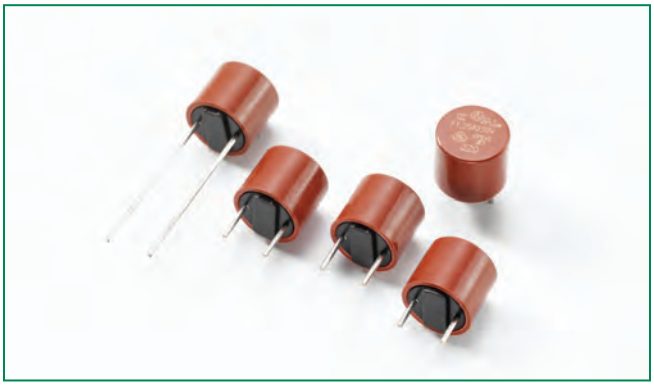
# 370 Series, TR5®, Fast-Acting Fuse



## Description

The 370 Series are TR5®,sub-miniature,fast-acting type, 250V rated fuses, designed in accordance to IEC 60127-3.

## Features

- Reduced PCB space requirements
- Direct solderable or plug-in versions
- Internationally approved
- Low internal resistance
- Shock safe casing
- Vibration resistant
- Halogen free
- Lead-free
- Available from 40mA to 6.3A

## Applications

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

## Agency Approvals

| Agency | Agency File Number | Ampere Range |
|---|---|---|
| | License number: 5007679-1170-0001/82438 | 100mA - 5A |
| | License number: 5007679-1170-0001/97059 5007679-1170-0009/97069 5007679-1170-0002/82443 | 40mA 50mA - 80mA 6.3A |
| | Certificate number: 1012264 | 50mA - 6.3A |
| | File number: E67006 | 40mA - 6.3A |
| | JET0381-31007-2003 | 1A - 5A |
| | 2007010207240347 | 50mA - 5A |

## Electrical Characteristics

| % of Ampere Rating | Opening Time |
|---|---|
| 150% | 1 Hour, **Min.** |
| 210% | 30 Minutes, **Max.** |
| 275% | 10 ms, **Min.** ; 3 Sec., **Max.** |
| 400% | 3 ms, **Min.** ; 300 ms, **Max.** |
| 1000% | 20 ms, **Max.** |



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Please refer to www.littelfuse.com/series/370.html for current information.

Revised: August 7, 2012

## Electrical Characteristics

| Amp Code | Rated Current | Voltage Rating | Breaking Capacity | Voltage Drop 1.0 x $I_N$ max. (mV) | Power Dissipation 1.5 x $I_N$ max. (mW) | Melting Integral 10 x $I_N$ max. ($A^2s$) | Agency Approvals | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | DVE | | cULus | PSE JET | |
| 0040 | 40mA | 250V | 35 A/ 250VAC[1] 50-60 Hz cos φ = 1.0 | 900 | 100 | 0.0002 | G | | X | | |
| 0050 | 50mA | 250V | | 320 | 80 | 0.00035 | X | X | X | | X |
| 0063 | 63mA | 250V | | 350 | 100 | 0.0005 | X | X | X | | X |
| 0080 | 80mA | 250V | | 370 | 120 | 0.0014 | X | X | X | | X |
| 0100 | 100mA | 250V | | 600 | 130 | 0.0038 | X | X | X | | X |
| 0125 | 125mA | 250V | | 550 | 172 | 0.0066 | X | X | X | | X |
| 0160 | 160mA | 250V | | 500 | 165 | 0.014 | X | X | X | | X |
| 0200 | 200mA | 250V | | 465 | 190 | 0.03 | X | X | X | | X |
| 0250 | 250mA | 250V | | 400 | 250 | 0.051 | X | X | X | | X |
| 0315 | 315mA | 250V | | 380 | 250 | 0.1 | X | X | X | | X |
| 0400 | 400mA | 250V | | 120 | 135 | 0.025 | X | X | X | | X |
| 0500 | 500mA | 250V | | 120 | 155 | 0.042 | X | X | X | | X |
| 0630 | 630mA | 250V | | 115 | 200 | 0.076 | X | X | X | | X |
| 0800 | 800mA | 250V | | 120 | 310 | 0.12 | X | X | X | | X |
| 1100 | 1.00A | 250V | | 110 | 310 | 0.2 | X | X | X | X | X |
| 1125 | 1.25A | 250V | | 100 | 360 | 0.31 | X | X | X | X | X |
| 1160 | 1.60A | 250V | | 100 | 600 | 0.53 | X | X | X | X | X |
| 1200 | 2.00A | 250V | | 85 | 500 | 0.98 | X | X | X | X | X |
| 1250 | 2.50A | 250V | | 80 | 660 | 1.8 | X | X | X | X | X |
| 1315 | 3.15A | 250V | | 90 | 950 | 3.1 | X | X | X | X | X |
| 1400 | 4.00A | 250V | 40 A / 250 VAC | 80 | 920 | 6.7 | X | X | X | X | X |
| 1500 | 5.00A | 250V | 50 A / 250 VAC | 80 | 1000 | 12.00 | X | X | X | X | X |
| 1630 | 6.30A* | 250V | 63 A / 250 VAC | 70 | 1200 | 24.00 | G | X | X | | |

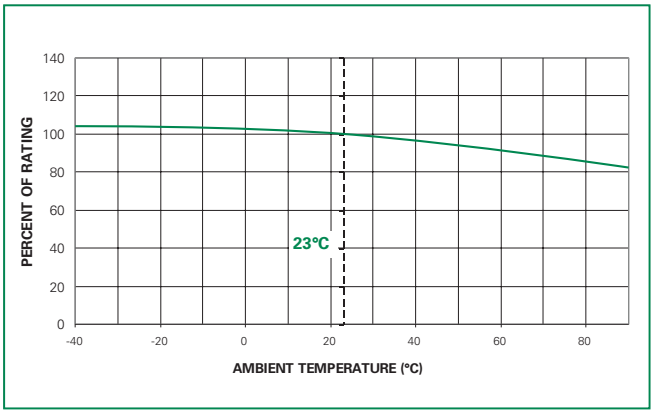
1 Per UL, approved breaking capacity is 50 A at 250 V.

* Conducting path min. 0.2 $mm^2$

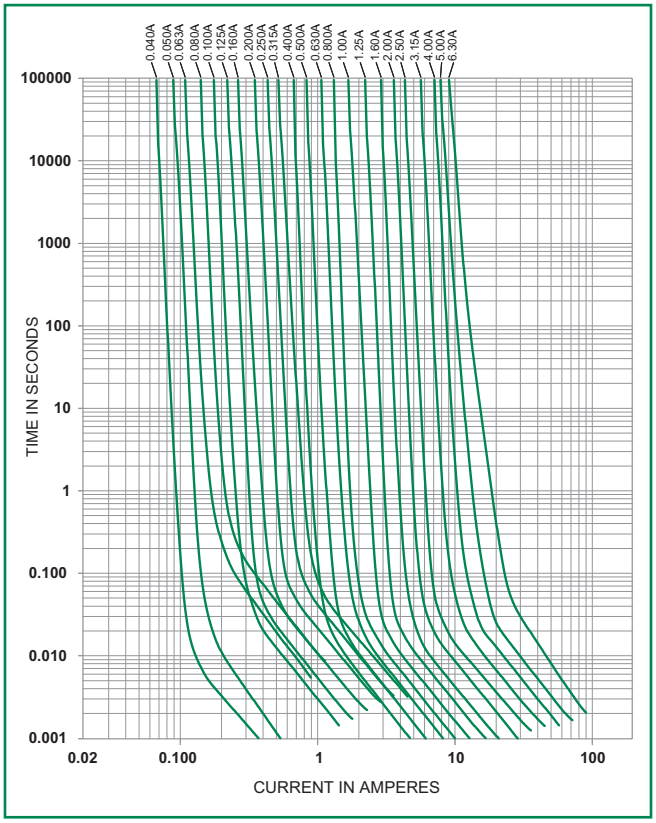
G = Expert Report pending

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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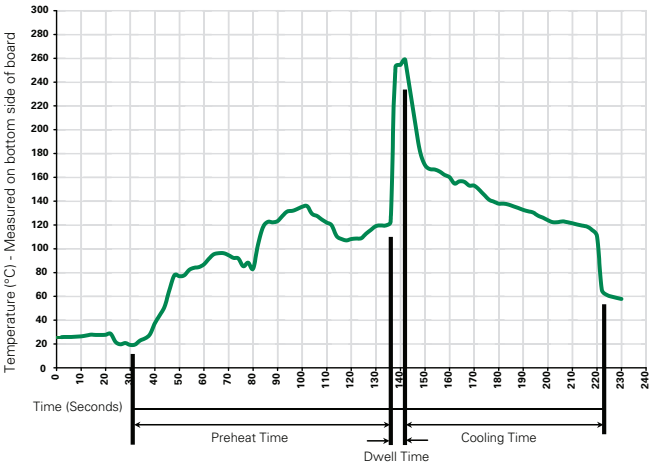
## Soldering Parameters - Wave Soldering




**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.

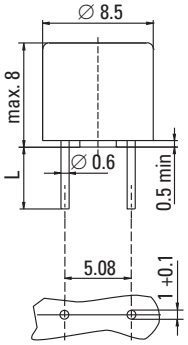
**Note: These devices are not recommended for IR or Convection Reflow process.**

## 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 to +85°C/21 days (IEC 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 (EN 60068-2-6)<br>10 - 60 Hz at 0.75 mm amplitude<br>60 - 2000 Hz at 10G acceleration |

## Dimensions




Holes in PCB

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

## Part Numbering System

**370 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.)

## Packaging

| Packaging Option | Packaging Specification | Quantity | Quantity & Packaging Code | Taping Width |
|---|---|---|---|---|
| **370 Series** | | | | |
| Tape & Ammopack | N/A | 1,000 | 0000 | N/A |
| Short Leads | N/A | 1,000 | 0410 | N/A |



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Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
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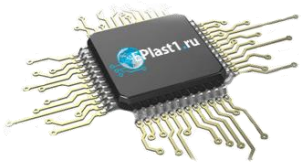
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.




**Как с нами связаться**

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