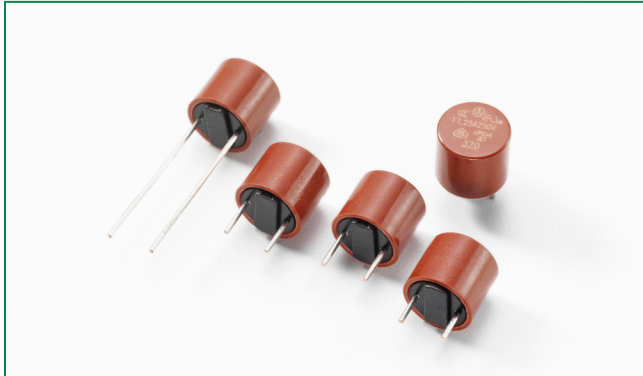


## 370 Series, TR5®, Fast-Acting Fuse



### Agency Approvals

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

### Electrical Characteristics

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

### 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

### Additional Information



**Datasheet**



**Resources**



**Samples**

## Electrical Characteristics

| Amp Code | Rated Current | Voltage Rating | Breaking Capacity                                  | Voltage Drop<br>$1.0 \times I_N$<br>max. (mV) | Power Dissipation<br>$1.5 \times I_N$<br>max. (mW) | Melting Integral<br>$10 \times I_N$<br>max. (A <sup>2</sup> s) | Agency Approvals |   |   |   |   |
|----------|---------------|----------------|----------------------------------------------------|-----------------------------------------------|----------------------------------------------------|----------------------------------------------------------------|------------------|---|---|---|---|
|          |               |                |                                                    |                                               |                                                    |                                                                |                  |   |   |   |   |
| 0040     | 40mA          | 250V           | 35 A / 250VAC <sup>1</sup><br>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 |   |   |

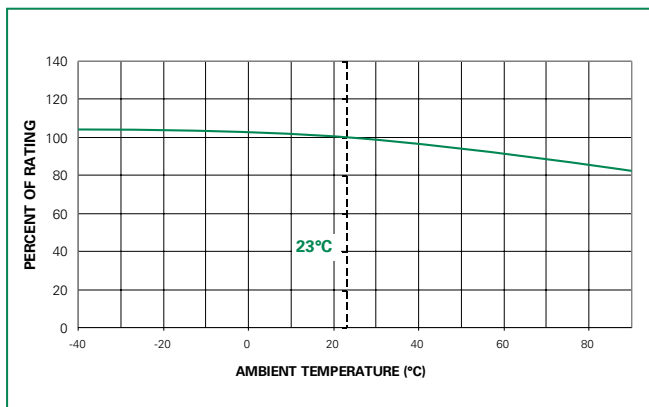
<sup>1</sup> Per UL, approved breaking capacity is 50 A at 250 V.

\* Conducting path min. 0.2 mm<sup>2</sup>

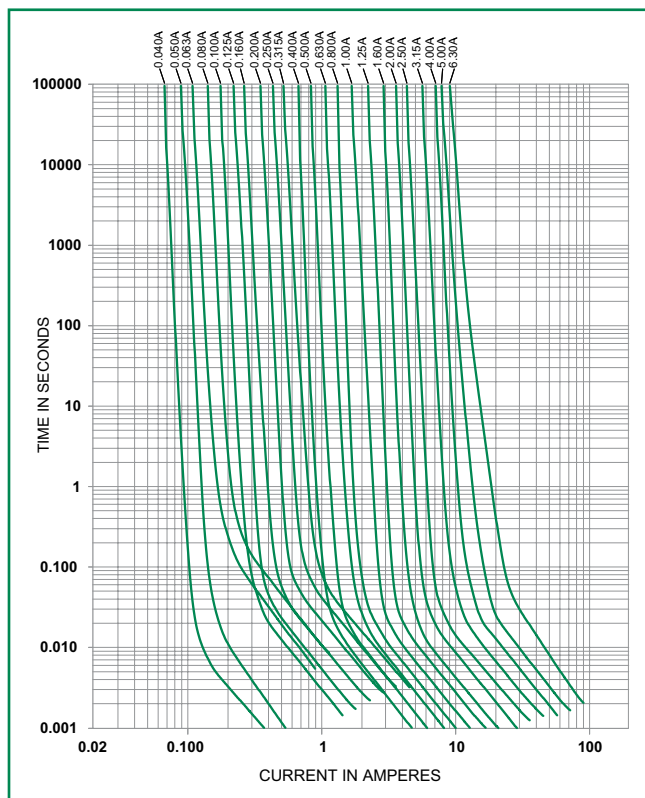
G = Expert Report pending

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

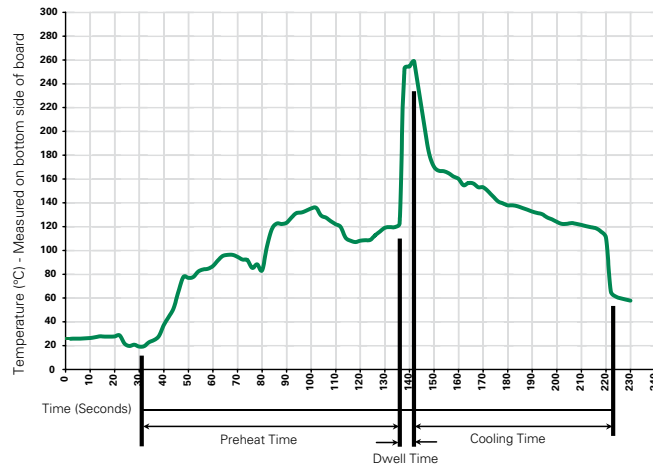
## Temperature Derating Curve



## 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.

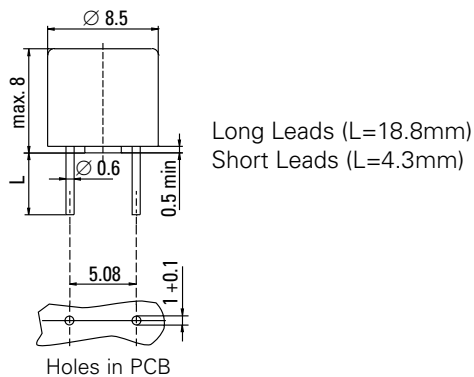
**Note:** These devices are not recommended for IR or Convection Reflow process.

## Product Characteristics

|                                  |                                                                                             |
|----------------------------------|---------------------------------------------------------------------------------------------|
| <b>Materials</b>                 | Base/Cap: Brown Thermoplastic Polyamide PA 6.6, UL 94 V-0<br>Round Pins: Copper, Tin-plated |
| <b>Lead Pull Strength</b>        | 10 N (EN 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 to +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>(EN 60068-2-6)<br>10 - 60 Hz at 0.75 mm amplitude<br>60 - 2000 Hz at 10G acceleration |

## Dimensions



## Part Numbering System

|                       |                                                                         |      |      |
|-----------------------|-------------------------------------------------------------------------|------|------|
| <b>Series</b>         | 370                                                                     | xxxx | 0000 |
| <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.) |      |      |

## Packaging

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