

### 370 Series, TR5 Fuse, Fast Acting









#### Description

The 370 Series are sub-miniature TR5® fuses, 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
- Lead-free, Halogen free and RoHS compliant
- Available from 0.040A to 6.3A
- UL Recognized to UL/CSA/NMX 248-1 and UL/CSA/NMX 248-14
- Conforms to EN/J 60127-1 and EN/J 60127-3
- Conforms to GB/T9364.1 and GB/T9364.3

#### Agency Approvals

Agency	Certificate Number	Ampere Range
	98941 40021074 40005316	0.100A - 5A 0.050A - 0.080A 6.3A
	40024532	0.040A
	1718753	0.050A - 6.3A
	E67006	0.040A - 6.3A
	JET1896-31007-2002	1A - 5A
	2007010207240347	0.050A - 6.3A

#### Applications

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

#### 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>

#### Additional Information



[Datasheet](#)



[Resources](#)



[Samples](#)

### Electrical Characteristics

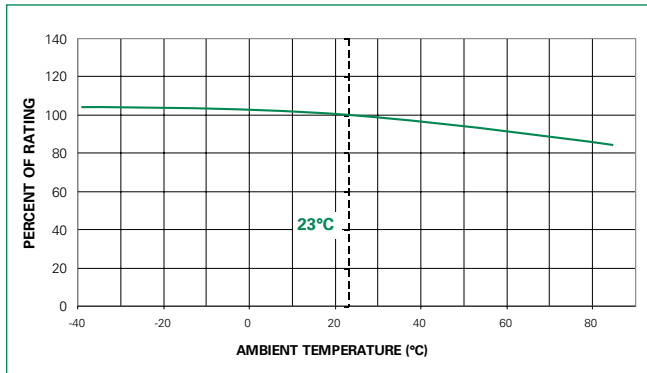
Amp Code	Rated Current	Voltage Rating	Breaking Capacity	Nominal Cold Resistance (Ohms)	Voltage Drop $1.0 \times I_N$ max. (mV)	Power Dissipation $1.5 \times I_N$ max. (mW)	Melting Integral $10 \times I_N$ max. (A <sup>2</sup> s)	Agency Approvals					
								VDE	DE	S	UL	PS E	CCC
0040	40mA	250V	35A @ 250VAC	6.0000	900	100	0.0002	X	-	-	X	-	-
0050	50mA	250V		4.0224	320	80	0.0004	-	X	X	X	-	X
0063	63mA	250V		2.6740	350	100	0.0005	-	X	X	X	-	X
0080	80mA	250V		2.0000	370	120	0.0014	-	X	X	X	-	X
0100	100mA	250V		4.6100	600	130	0.0038	-	X	X	X	-	X
0125	125mA	250V		3.2400	550	172	0.0066	-	X	X	X	-	X
0160	160mA	250V		2.2520	500	165	0.0140	-	X	X	X	-	X
0200	200mA	250V		1.6900	465	190	0.0300	-	X	X	X	-	X
0250	250mA	250V		1.3420	400	250	0.0510	-	X	X	X	-	X
0315	315mA	250V		0.9300	380	250	0.1000	-	X	X	X	-	X
0400	400mA	250V		0.1610	120	135	0.0250	-	X	X	X	-	X
0500	500mA	250V		0.1210	120	155	0.0420	-	X	X	X	-	X
0630	630mA	250V		0.0920	115	200	0.0760	-	X	X	X	-	X
0800	800mA	250V		0.0760	120	310	0.1200	-	X	X	X	-	X
1100	1.00A	250V		0.0676	110	310	0.2000	-	X	X	X	X	X
1125	1.25A	250V		0.0518	100	360	0.3100	-	X	X	X	X	X
1160	1.60A	250V		0.0420	100	600	0.5300	-	X	X	X	X	X
1200	2.00A	250V		0.0325	85	500	0.9800	-	X	X	X	X	X
1250	2.50A	250V		0.0246	80	660	1.8000	-	X	X	X	X	X
1315	3.15A	250V		0.0184	90	950	3.1000	-	X	X	X	X	X
1400	4.00A	250V	40A / 250VAC	0.0129	80	920	6.7000	-	X	X	X	X	X
1500	5.00A	250V	50A / 250VAC	0.0105	80	1000	12.0000	-	X	X	X	X	X
1630	6.30A*	250V	63A / 250VAC	0.0073	70	1200	24.0000	-	X	X	X	-	X

1 Per UL, approved breaking capacity is 50 A at 250 V.  
\* Conducting path min. 0.2 mm<sup>2</sup>

**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.

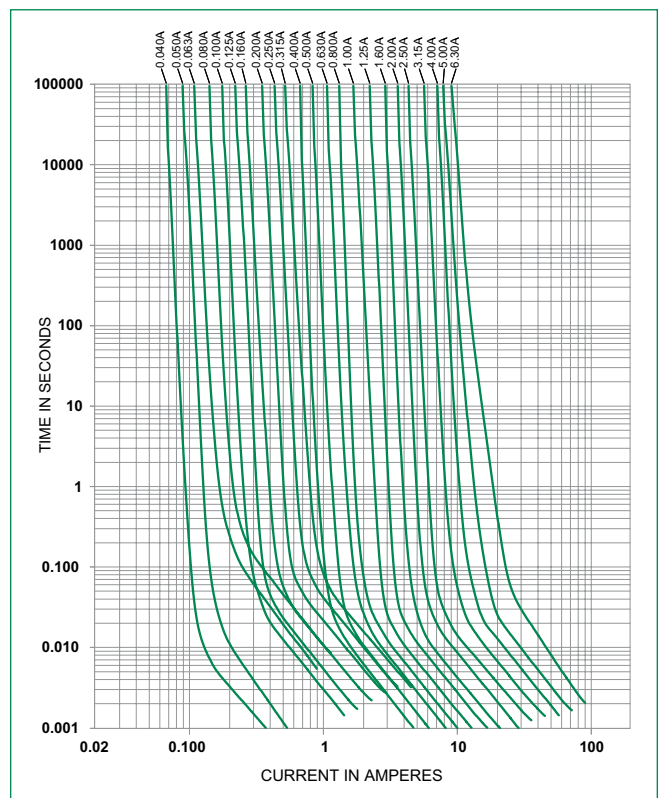
### Temperature Re-rating Curve



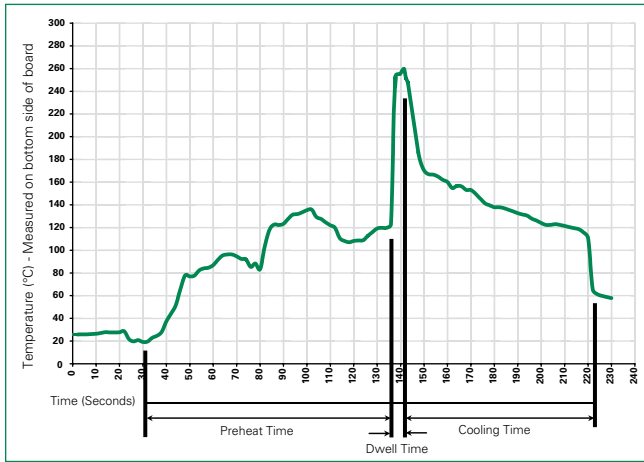
**Note**

- 1. Rerating 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
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.

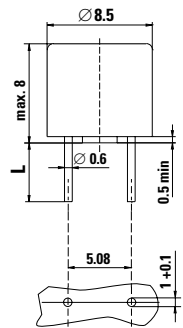
**Note:** These devices are not recommended for IR or Convection Reflow process.

### Product Characteristics

<b>Materials</b>	Base/Cap: Brown Thermoplastic Polyamide PA 6.6, UL 94 V-0 Round Pins: Copper, Tin-plated
<b>Lead Pull Strength</b>	10 N (IEC 60068-2-21)
<b>Solderability</b>	260°C, ≤ 3s. (Wave) 350°C, ≤ 1s. (Soldering Iron)
<b>Soldering Heat Resistance</b>	260°C, 10s. (IEC 60068-2-20) 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 (IEC 60068-1,-2-1,-2-2,-2-78)
<b>Stock Conditions</b>	+10°C to +60°C RH ≤ 75% yearly average, without dew, maximum value for 30 days-95%
<b>Vibration Resistance</b>	24 cycles at 15 min. each (IEC 60068-2-6) 10 - 60 Hz at 0.75 mm amplitude 60 - 2000 Hz at 10G acceleration

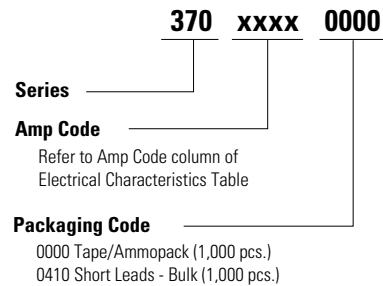
### Dimensions



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

Löcher in der Leiterplatte  
Holes in the printed circuit board Holes in PCB

### Part Numbering System



### 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

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