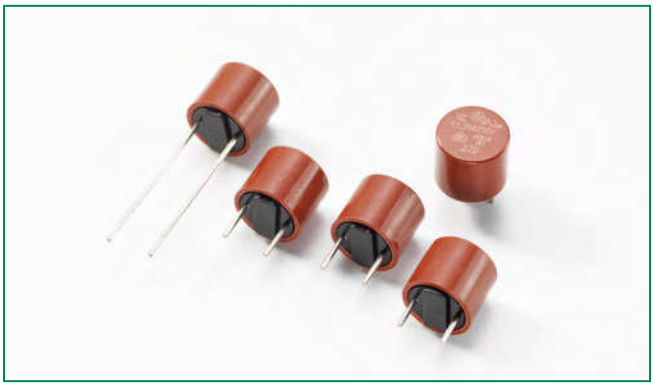
370 Series, TR5 Fuse, Fast Acting



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

Applications

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

Agency Approvals

Agency	Agency File Number	Ampere Range
	License number: 5007679-1170-0001/82438	0.100A - 5A
	License number: 5007679-1170-0001/97059 5007679-1170-0009/97069 5007679-1170-0002/82443	0.040A 0.050A - 0.080A 6.3A
	1506849	0.050A - 6.3A
	E67006	0.040A - 6.3A
	JET1896-31007-2002	1A - 5A
	2007010207240347	0.050A - 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.**

Additional Information

Datasheet | **Resources** | **Samples**

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Application testing is strongly recommended. Specifications are subject to change without notice.
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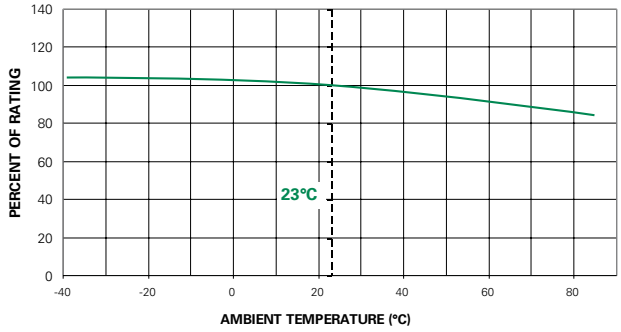
Electrical Characteristics

Amp Code	Rated Current	Voltage Rating	Breaking Capacity	Nominal Cold Resistance (Ohms)	Voltage Drop 1.0×I_N max. (mV)	Power Dissipation 1.5×I_N max. (mW)	Melting Integral 10×I_N max. (A^2s)	Agency Approvals				
0040	40mA	250V		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	35A @	0.9300	380	250	0.1000	X	X	X		X
0400	400mA	250V	250VAC	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		

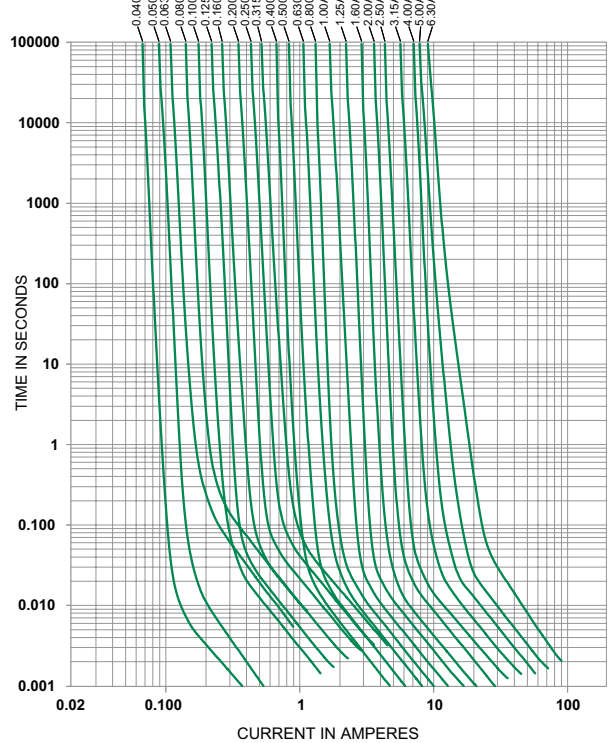
1 Per UL, approved breaking capacity is 50 A at 250 V.
* Conducting path min. 0.2 mm²
Notes:
1) 1.00 means the number one with two decimal places. 1,000 means the number one thousand.
2) Resistance is measured at 10% of rated current, 25ºC.

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



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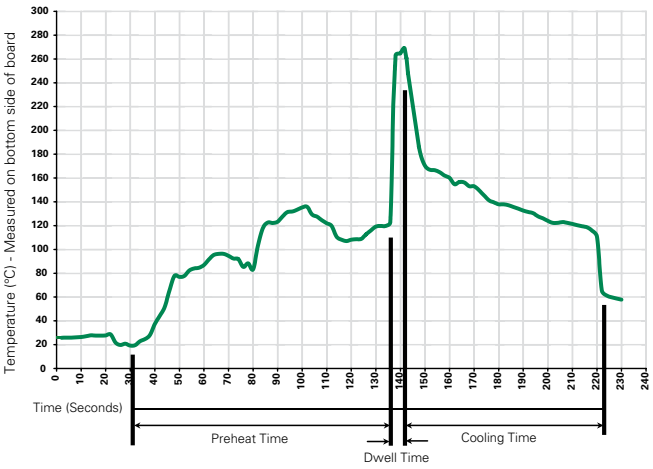
Radial Lead Fuses

TR5® > Fast-Acting Fuse > 370 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.

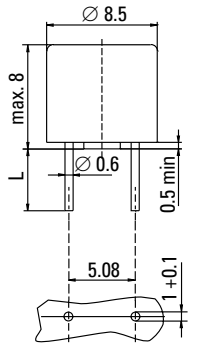
Note: These devices are not recommended for IR or Convection Reflow process.

Product Characteristics

Materials	Base/Cap: Brown Thermoplastic Polyamide PA 6.6, UL 94 V-0 Round Pins: Copper, Tin-plated
Lead Pull Strength	10 N (IEC 60068-2-21)
Solderability	260°C, ≤ 3s. (Wave) 350°C, ≤ 1s. (Soldering Iron)
Soldering Heat Resistance	260°C, 10s. (IEC 60068-2-20) 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 RH ≤ 75% yearly average, without dew, maximum value for 30 days-95%
Vibration Resistance	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)

Holes in PCB

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
—				
Tape & Ammopack	N/A	1,000	0000	N/A
Short Leads	N/A	1,000	0410	N/A

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