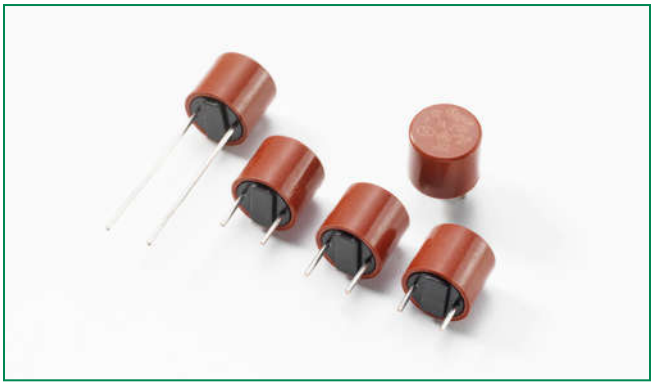
372 Series, TR5 Fuse, Time Lag



Description

The 372 Series are TR5® Fuses, Time-Lag type, 250V rated fuses, that are designed in accordance to IEC 60127-3.

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 0.040A to 6.3A

Agency Approvals

Agency	Agency File Number	Ampere Range
DVE	97187	0.050A - 4A
VDE	116448	5A - 6.3A
PSE	JET1896-31007-2002	1A - 5A
S	1410865	0.050A - 6.3A
c UL us	E67006	0.040A - 6.3A
KC	SU05024-7010 SU05024-7011 SU05024-7006 SU05024-7007 SU05024-7008 SU05024-7009 SU05024-7012	0.050 - 0.100A 0.125 - 0.800A 1A - 2.5A 3.15A 4A 5A 6.3A
CQC	CQC07012020855	5A - 6.3A
CCC	2007010207240346	0.040A - 4A

Applications

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

Electrical Characteristics

% of Ampere Rating	Opening Time
150%	1 Hour, **Min.**
210%	2 Minutes, **Max.**
275%	400 ms, **Min.** ; 10 Sec., **Max.**
400%	150 ms, **Min.** ; 3 Sec., **Max.**
1000%	20 ms, **Min.** ; 150 ms, **Max.**

Additional Information

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

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Radial Lead Fuses

TR5® > Time-Lag Fuse > 372 Series

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 min. (A^2s)	Agency Approvals					
								VDE		cULus	PSE		
0040	40mA	250V	35A@250VAC	10.1650	900	90	0.0090			X			
0050	50mA	250V		6.4950	500	70	0.0108	X	X	X		X	X
0063	63mA	250V		3.8000	400	80	0.0278	X	X	X		X	X
0080	80mA	250V		2.8750	370	100	0.0384	X	X	X		X	X
0100	100mA	250V		1.7030	300	110	0.0800	X	X	X		X	X
0125	125mA	250V		1.3500	260	120	0.1094	X	X	X		X	X
0160	160mA	250V		0.7780	200	130	0.1792	X	X	X		X	X
0200	200mA	250V		0.5750	170	140	0.3120	X	X	X		X	X
0250	250mA	250V		0.4000	150	150	0.4938	X	X	X		X	X
0315	315mA	250V		0.2760	140	160	0.3969	X	X	X		X	X
0400	400mA	250V		0.2050	130	170	1.4080	X	X	X		X	X
0500	500mA	250V		0.1550	125	180	2.0000	X	X	X		X	X
0630	630mA	250V		0.1150	120	200	3.0958	X	X	X		X	X
0800	800mA	250V		0.1000	110	220	5.7600	X	X	X		X	X
1100	1.00A	250V		0.0790	110	360	7.5000	X	X	X	X	X	X
1125	1.25A	250V		0.0550	95	450	13.7500	X	X	X	X	X	X
1160	1.60A	250V		0.0420	95	450	19.9680	X	X	X	X	X	X
1200	2.00A	250V		0.0300	85	600	30.0000	X	X	X	X	X	X
1250	2.50A	250V		0.0220	80	700	35.0000	X	X	X	X	X	X
1315	3.15A	250V		0.0173	80	1100	77.3955	X	X	X	X	X	X
1400	4.00A	250V	40A / 250 VAC	0.0129	75	1200	126.4000	X	X	X	X	X	X
1500	5.00A	250V	50A / 250 VAC	0.0094	80	1300	115.0000	X	X	X	X	CQC	X
1630	6.30A*	250V		0.0070	58	1250	138.9150	X	X	X		CQC	X

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

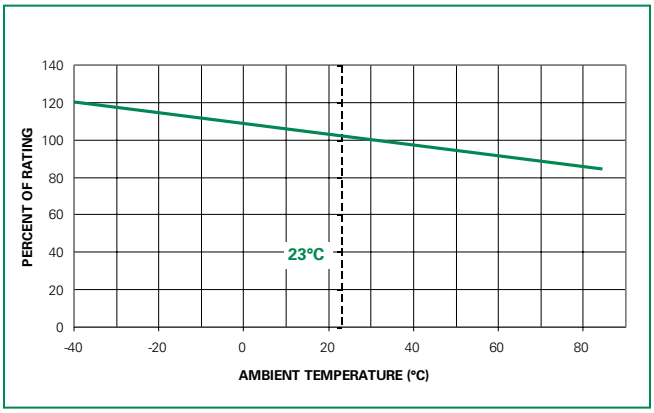
* Conducting path min. 0.2 mm²

Notes:

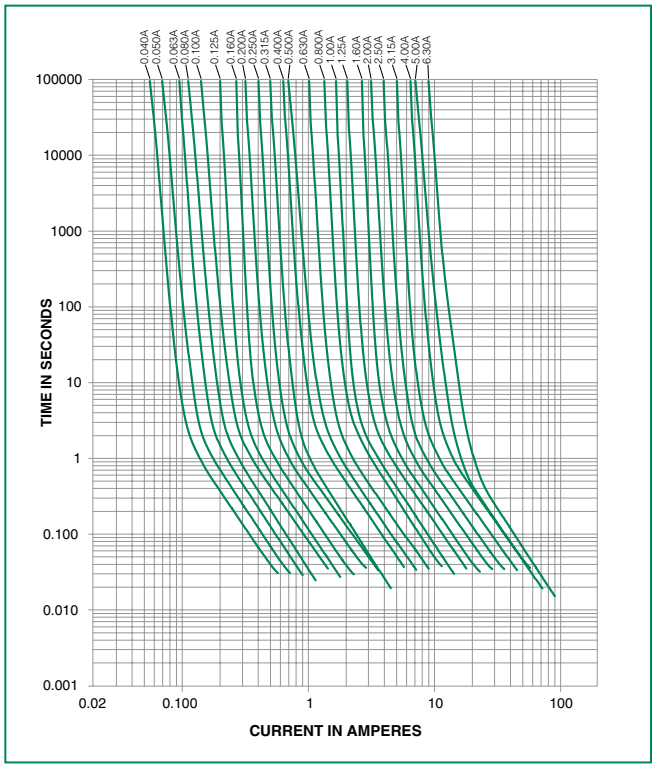
1) 1.00 means the number one with two decimal places. 1,000 means the number one thousand.

2) Resistance is measured at 10% of rated current, 25°C.

Temperature Re-rating Curve



Average Time Current Curves



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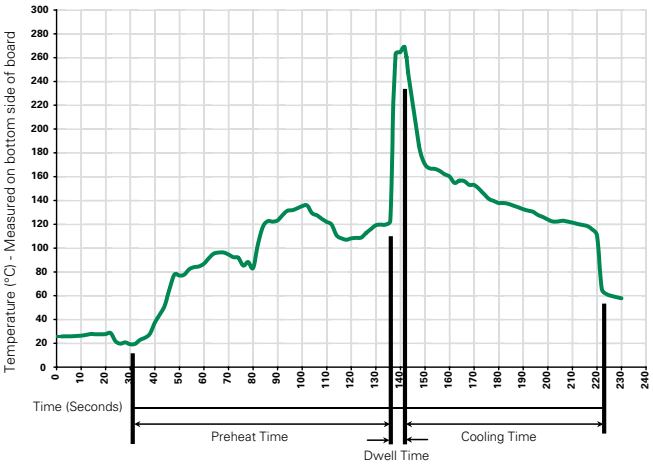
Soldering Parameters - Wave Soldering



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:

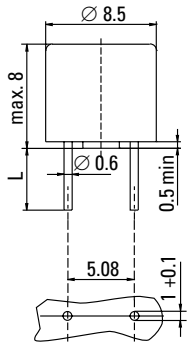
Solder Iron Temperature: 350°C +/- 5°C
Heating Time: 5 seconds max.

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 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 re-rating)
Climatic Category	-40°C/+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's acceleration

Dimensions



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

Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
372 Series				
Tape & Ammopack	N/A	1,000	0001	N/A
Short Leads	N/A	1,000	0411	N/A
Short Leads	N/A	200	0431	N/A
3.3mm Leads	N/A	1,000	0511	N/A

Part Numbering System

372 xxxx 0001

Series

Amp Code
Refer to Amp Code column of Electrical Characteristics Table

Packaging Code
0001 Tape/Ammopack (1,000 pcs.)
0411 Short Leads - Bulk (1,000 pcs.)
0431 Short Leads - Bulk (200 pcs.)
0511 3.3 mm Leads - Bulk (1000 pcs.)

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