

RoHS **Pb** **372 Series, TR5®, Time-Lag Fuse**



**Description**

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

**Features**

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

**Agency Approvals**

Agency	Agency File Number	Ampere Range
	5007679-1170-0003/82447	50mA - 4A
	5007679-1170-0004/82452	5A - 6.3A
	JET1896-31007-2002	1A - 5A
	1010253	50mA - 6.3A
	E67006	40mA - 6.3A
	SU05024-7010 SU05024-7011 SU05024-7006 SU05024-7007 SU05024-7008 SU05024-7009 SU05024-7012	50mA - 100mA 125mA - 800mA 1A - 2.5A 3.15A 4A 5A 6.3A
	CQC07012021162	5A - 6.3A
	2007010207240346	40mA - 4A

**Applications**

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

**Electrical Characteristics**

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

**372 Series**

### Electrical Characteristics

Amp Code	Rated Current	Voltage Rating	Breaking Capacity	Voltage Drop $1.0 \times I_N$ max. (mV)	Power Dissipation $1.5 \times I_N$ max. (mW)	Melting Integral $10 \times I_N$ min. (A <sup>2</sup> s)	Agency Approvals						
													
0040	40mA	250V	35A/250VAC <sup>1</sup> 50-60 Hz cos φ = 1.0	900	90	0.009			X				
0050	50mA	250V		500	70	0.01	X	X	X		X	X	
0063	63mA	250V		400	80	0.02	X	X	X		X	X	
0080	80mA	250V		370	100	0.023	X	X	X		X	X	
0100	100mA	250V		300	110	0.047	X	X	X		X	X	
0125	125mA	250V		260	120	0.066	X	X	X		X	X	
0160	160mA	250V		200	130	0.14	X	X	X		X	X	
0200	200mA	250V		170	140	0.20	X	X	X		X	X	
0250	250mA	250V		150	150	0.28	X	X	X		X	X	
0315	315mA	250V		140	160	0.36	X	X	X		X	X	
0400	400mA	250V		130	170	0.9	X	X	X		X	X	
0500	500mA	250V		125	180	1.3	X	X	X		X	X	
0630	630mA	250V		120	200	2.5	X	X	X		X	X	
0800	800mA	250V		110	220	3.8	X	X	X		X	X	
1100	1.00A	250V		110	360	5.5	X	X	X	X	X	X	
1125	1.25A	250V		95	450	9	X	X	X	X	X	X	
1160	1.60A	250V		95	450	14	X	X	X	X	X	X	
1200	2.00A	250V		85	600	23	X	X	X	X	X	X	
1250	2.50A	250V		80	700	35	X	X	X	X	X	X	
1315	3.15A	250V		80	1100	60	X	X	X	X	X	X	
1400	4.00A	250V	40A / 250 VAC	75	1200	95	X	X	X	X	X		
1500	5.00A	250V	50A / 250 VAC	80	1300	94	G	X	X	X	CQC	X	
1630	6.30A*	250V		58	1250	105	G	X	X	X	CQC	X	

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

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

G = Expert Report

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> (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 Round Pins: Copper, Tin-plated
<b>Lead Pull Strength</b>	10 N (EN 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/+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 (EN 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)

**Part Numbering System**



**Packaging**

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
<b>372 Series</b>				
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