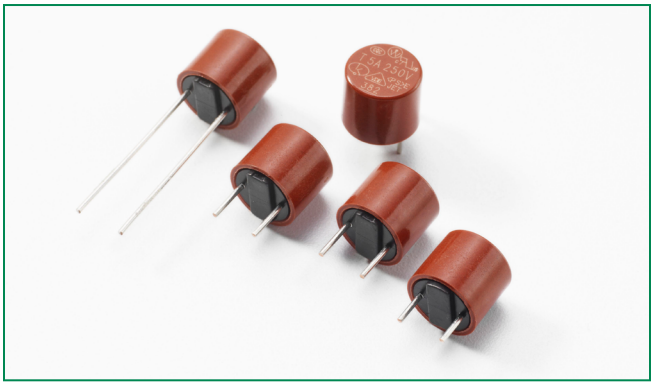
382 Series, TR5®, Time-Lag Fuse



Agency Approvals

Agency	Agency File Number	Ampere Range
	5007679-1170-0038/82455	1A - 4A
	Liscense number: 5007679-1170-0006/82571	5A - 6.3A
	Certification: 1026674	1A - 6.3A
	File number: E 67006	1A - 10A
	JET1896-31007-2001 JET1896-31007-1003	1A - 10A
	2007010207240344	1A - 4A
	CQC07012021162	5A - 6.3A
	SU05024-7003 SU05024-7002 SU05024-7001 SU05024-7004 SU05024-7005	1A - 6.3A

Description

The 382 Series are TR5®, time-Lag type, 250V rated fuses, with enhanced breaking capacity designed in accordance to IEC 60127-3.

Features

- Lead-free
- Reduced PCB space requirements
- Direct solderable or plug-in versions
- 100A breaking capacity
- Internationally approved
- Low internal resistance
- Shock safe casing
- Vibration resistant
- Halogen free
- Available from 1A to 10A

Applications

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

Electrical Characteristics

% of Ampere Rating	Opening Time	
	1A - 6.3A	8A - 10A
150%	1 Hour, **Min.**	1 Hour, **Min.**
210%	2 Minutes, **Max.**	300 s, **Max.**
275%	400 ms, **Min.** ; 10 Sec., **Max.**	1 s, **Min.** ; 20 s, **Max.**
400%	150 ms, **Min.** ; 3 Sec., **Max.**	150 ms, **Min.** ; 3 Sec., **Max.**
1000%	20 ms, **Min.** ; 150 ms, **Max.**	20 ms, **Min.** ; 150 ms, **Max.**

Additional Information

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

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Revised: 12/19/13

Radial Lead Fuses

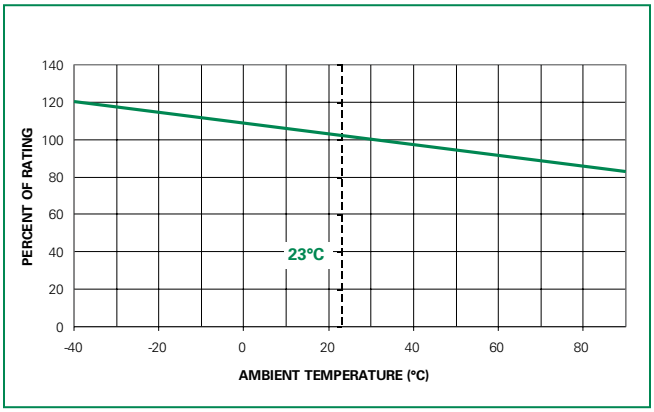
TR5® > Time-Lag > 382 Series

Electrical Characteristics

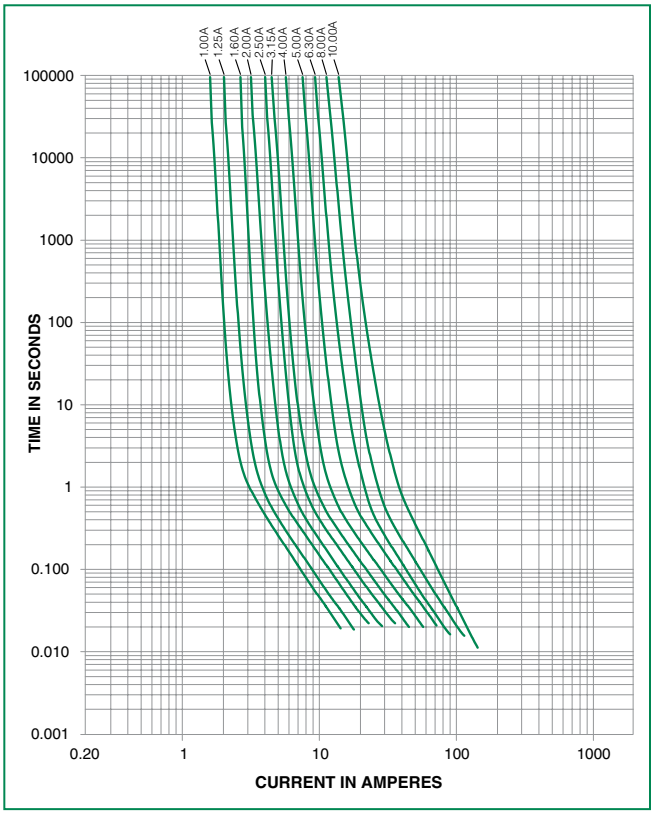
Amp Code	Rated Current	Voltage Rating	Breaking Capacity	Voltage Drop $1.0 \times I_N$ max. (mV)	Power Dissipation $1.5 \times I_N$ max. (mW)	Melting Integral $10 \times I_N$ min. (A^2s)	Agency Approvals					
							VDE		cULus	PSE JET		
1100	1.00 A	250 V	100A / 250VAC 50-60 Hz cos φ = 1.0	100	400	3.0	X	X	X	X	X	X
1125	1.25 A	250 V		95	465	4.5	X	X	X	X	X	X
1160	1.60 A	250 V		90	490	9.0	X	X	X	X	X	X
1200	2.00 A	250 V		85	670	12	X	X	X	X	X	X
1250	2.50 A	250 V		80	750	22	X	X	X	X	X	X
1315	3.15 A	250 V		75	900	32	X	X	X	X	X	X
1400	4.00 A	250 V		70	1200	58	X	X	X	X	X	X
1500	5.00 A	250 V		65	1250	90	G	X	X	X	QCC	X
1630	6.30 A	250 V		65	1400	105	G	X	X	X	CQC	X
1800	8.00 A	250 V		63	1600	180			X	X		
2100	10.00 A	250 V		57	1600	260			X	X		

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

Temperature Rerating Curve



Average Time Current Curves



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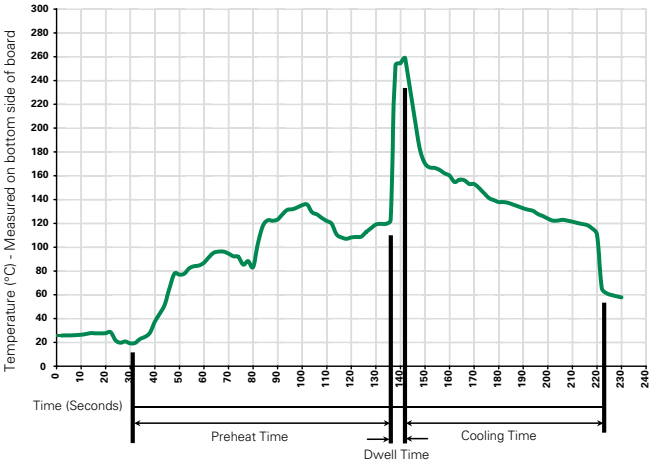
Soldering Parameters - Wave Soldering



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.

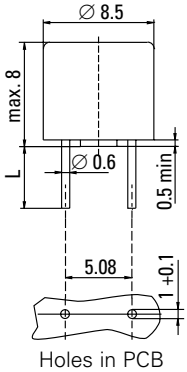
Note: These devices are not recommended for IR or Convection Reflow process.

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 (EN 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 (EN 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 (EN 60068-2-6) 10 - 60 Hz at 0.75 mm amplitude 60 - 2000 Hz at 10 g acceleration

Dimensions



Holes in PCB

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

Part Numbering System

382 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.)
0430 Short Leads - Bulk (200 pcs.)

Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
382 Series				
Tape & Ammopack	N/A	1,000	0000	N/A
Short Leads	N/A	1,000	0410	N/A
Short Leads	N/A	200	0430	N/A

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