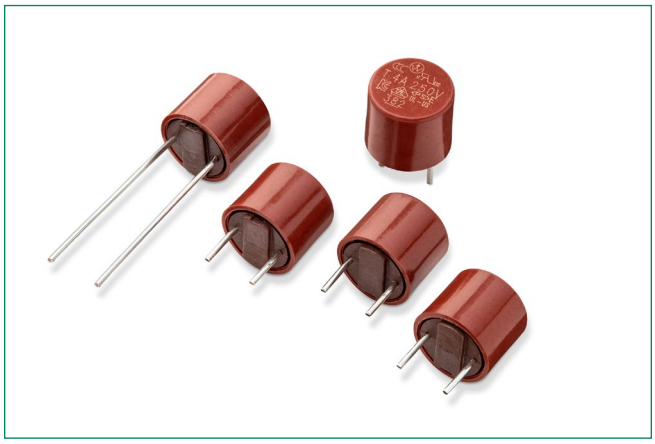
382 Series

TR5® Fuse, Time-Lag



Web Resources

Download ECAD models, order samples, and find technical recources at www.littelfuse.com

Description

The 382 Series are TE5 Time-Lag type Fuses, 250V rated, with enhanced breaking capacity and designed in accordance to IEC 60127-3.

Features & Benefits

- Halogen free, Lead-free and RoHS compliant
- Reduced PCB space requirements
- Direct solderable or plug-in versions
- 100A breaking capacity
- nternationally approved
- Low internal resistance
- Shock safe casing
- Vibration resistant
- Available from 1A to 10A
- UL Recognized to UL/CSA/NMX 248-1 and UL/CSA/NMX 248-14
- Conforms to EN/IEC 60127-1 and EN/IEC 60127-3
- Conforms to J60127-1 and J60127-3
- Conforms to K60127-1 and K60127-3
- Conforms to GB/T9364.1 and GB/T9364.3

Applications

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

Agency Approvals

Agency	Agency File Number	Ampere Range
	40018249 40018250	1A - 4A 5A - 6.3A
	E67006	1A - 10A
	NBK040322-JP1021 NBK200122-JP1021	1 - 5A 6.3 - 10A
	2020970207000057	1A - 6.3A
	SU05024-7003 SU05024-7002 SU05024-7001 SU05024-7004 SU05024-7005	1-2.5A 3.15A 4A 5A 6.3A
	NA	1A - 6.3A
	NA	1A - 6.3A

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.	-
400%	150 ms, Min. ; 3 Sec., Max.	-
1000%	20 ms, Min. ; 150 ms, Max.	-

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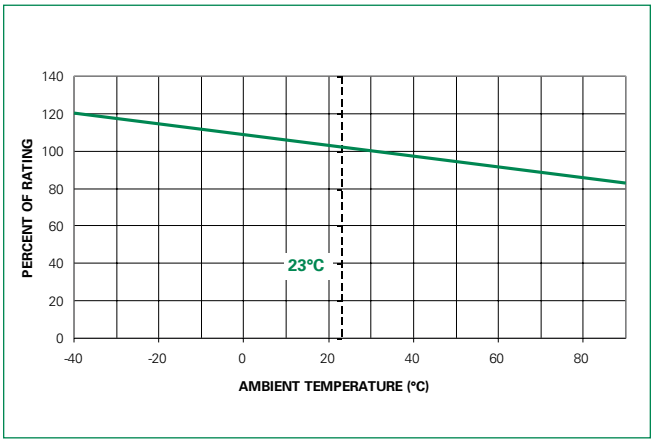
382 Series
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Electrical Characteristics

Amp Code	Rated Current	Voltage Rating	Breaking Capacity[3]	Nominal Cold Resistance (Ohms)[2]	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						
								CE	UKCA	VDE	cULus	PSE	CCC	KC
1100	1.00 A	250 V	100A @250VAC	0.0625	100	400	4.85	X	X	X	X	X	X	X
1125	1.25 A	250 V		0.0500	95	465	6.88	X	X	X	X	X	X	X
1160	1.60 A	250 V		0.0377	90	490	12.67	X	X	X	X	X	X	X
1200	2.00 A	250 V		0.0280	85	670	17.80	X	X	X	X	X	X	X
1250	2.50 A	250 V		0.0215	80	750	29.69	X	X	X	X	X	X	X
1315	3.15 A	250 V		0.0176	75	900	45.35	X	X	X	X	X	X	X
1400	4.00 A	250 V		0.0138	70	1200	72.00	X	X	X	X	X	X	X
1500	5.00 A	250 V		0.0108	65	1250	121.25	X	X	X	X	X	X	X
1630	6.30 A	250 V		0.0076	65	1400	148.84	X	X	X	X	X	X	X
1800	8.00 A	250 V		0.0059	63	1600	233.60	-	-	-	X	X	-	-
2100	10.00 A	250 V		0.0042	57	1600	365.00	-	-	-	X	X	-	-

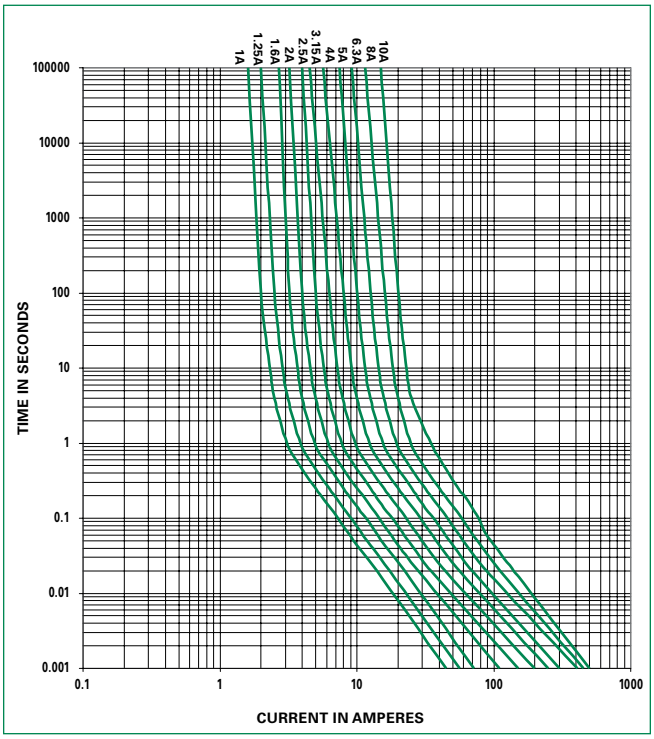
Notes:
1. 1.00 means the number one with two decimal places. 1,000 means the number one thousand.
2. Resistance is measured at 10% of rated current, 25°C.
3. Breaking Capacity may differ based on Agency Approval. See Agency Approval certificate for more details.

Temperature Rerating 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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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

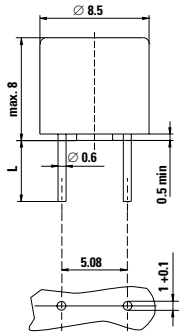
Recommended Hand-Solder Parameters:
Solder Iron Temperature: 350°C +/- 5°C
Heating Time: 5 seconds max.
Note: These devices are not recommended for IR or Convection Reflow process.

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 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 10 g acceleration

Dimensions (mm)



Long Leads (L=18.8mm ±0.3)
Short Leads (L=4.3mm ±0.3)

Holes in PCB

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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