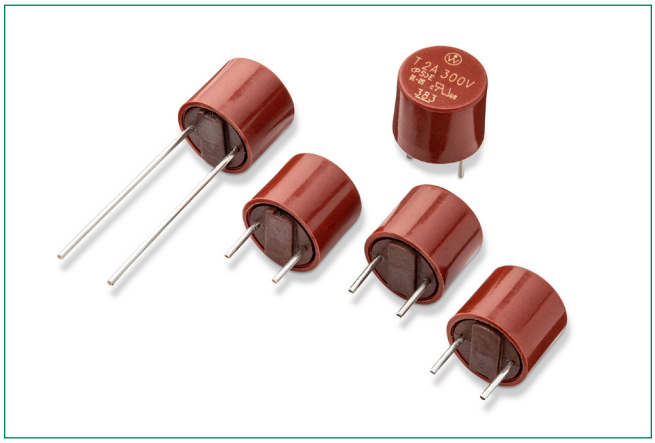
383 Series

TR5® Time-Lag Fuse



Description

The 383 series are TR5® time-lag 300V rated fuses and designed in accordance to IEC 60127-3.

Features and Benefits

- 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
- Recognized to UL/CSA/NMX 248-1 and UL/CSA/NMX 248-14
- Conforms to EN/J60127-1 and EN/J60127-3
- CE Mark indicates compliance with Low-Voltage and RoHS Directives

Additional Information

Resources | Accessories | Samples

Applications

- Electronic Ballast

Electrical Characteristics for Series

% 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 s, Max.	1 s, Min.; 20 s, Max.
400%	150 ms, Min.; 3 s, Max.	150 ms, Min.; 3 s, Max.
1000%	20 ms, Min. ; 150 ms, Max.	20 ms, Min. ; 150 ms, Max.

Agency Approvals

Agency	Agency File Number	Ampere Range
VDE	40022712	4A - 5A
PSE	NBK040322-JP1021 NBK200122-JP1021	1A - 5A 6.3A - 10A
cULus	E67006	1A - 10A
UKCA	N/A	1A - 10A

Electrical Characteristics Specifications by Item

Amp Code	Rated Current	Max Voltage Rating	Breaking Capacity	Nominal Cold Resistance (Ohms)	Voltage Drop $1.0 \times I_N$ max. (mV)	Power Dissipation $1.5 \times I_N$ max. (mW)	Melting Integral $10 \times I_N$ max. (A^2s)	Agency Approvals				
								UKCA	VDE	PSE	cULus	CE
1100	1.00 A	300 V	100A@300VAC 50A@320VAC	0.0625	100	400	4.85	X	-	X	X	X
1125	1.25 A	300 V		0.0500	95	465	6.88	X	-	X	X	X
1160	1.60 A	300 V		0.0377	90	490	12.67	X	-	X	X	X
1200	2.00 A	300 V		0.0280	85	670	17.80	X	-	X	X	X
1250	2.50 A	300 V		0.0215	80	750	29.69	X	-	X	X	X
1315	3.15 A	300 V		0.0176	75	900	45.35	X	-	X	X	X
1400	4.00 A	300 V		0.0138	70	1200	72.00	X	X	X	X	X
1500	5.00 A	300 V	50A@320VAC 100A@250VAC	0.0108	65	1250	121.25	X	X	X	X	X
1630	6.30 A	300 V		0.0076	65	1400	148.84	X	-	X	X	X
1800	8.00 A	300 V		0.0059	63	1600	233.60	X	-	X	X	X
2100	10.00 A	300 V		0.0042	57	1600	365.00	X	-	X	X	X

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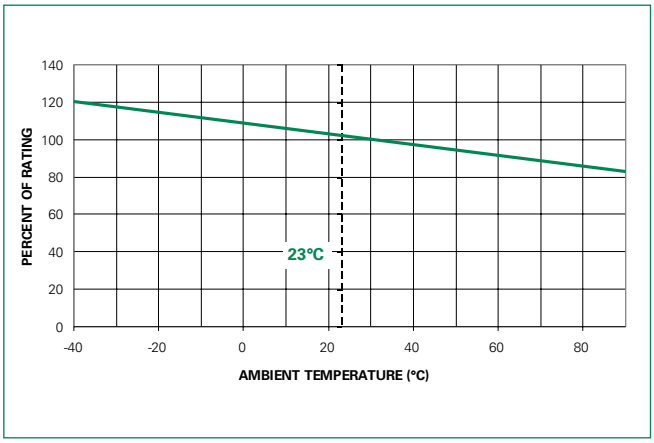
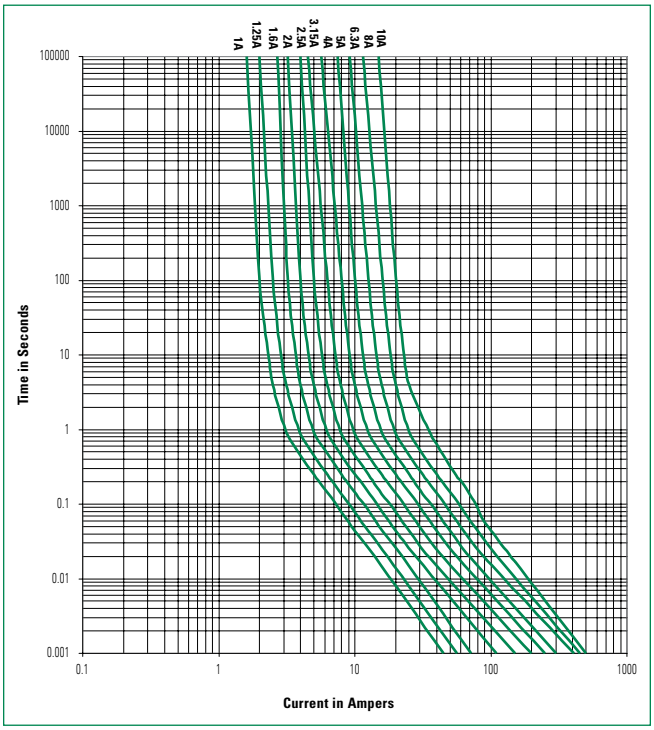
Temperature Re-rating Curve

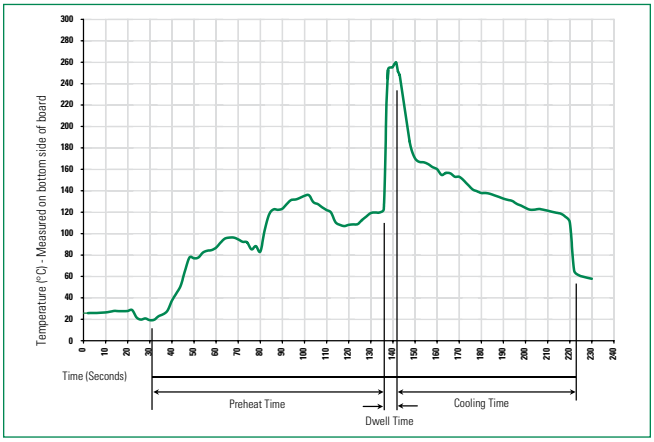


Note:
1. Rerating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

Average Time Current Curves



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.

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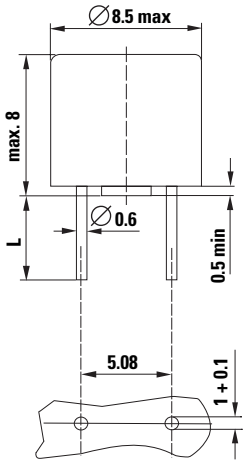
Product Characteristics

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



Holes in PCB

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

Part Numbering System

383 xxxx 0000

Series

Amp Code

Refer to Amp Code column of Electrical Characteristics Table

Packaging Code

0000 Tape/Ammopack (1,000pcs.)
0410 Short Leads - Bulk (1,000pcs.)

Packing

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

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