

Type F210 0000 SMD Fuse

IEC 60127-4
250V 100-150A
Time delay



Properties	Applications
<ul style="list-style-type: none"> * Lead free, RoHS conformity * Halogen free * Time delay in a small size * High operating temperature * High surge wave resistance * Excellent environmental integrity * Plane surface 	<ul style="list-style-type: none"> * Led power supplies * High voltage DC current sources up to 350V * High efficiency switching power supplies * DC / DC converter * Brushless fan controls * IT equipment * Measurement / Sensors and Interfaces



Article no.	Irat A	Voltage drop 1,0 x Irat max. mV	Power dissipation 1,25 x Irat max. W	Melting Integral 10 x Irat nominal A²s	Cold- resistance 0,1 x Irat nominal Ω	Breaking capacity		UMF (VDE) approved
						250 V AC	350V DC L/R=1ms	
F210 0315	0,315	130	0,18	0,15	0,300	150A	100A	✓
F210 0400	0,400	130	0,18	0,32	0,240	150A	100A	✓ (AC)
F210 0500	0,500	130	0,20	0,45	0,186	150A	100A	✓ (AC)
F210 0630	0,630	120	0,20	0,85	0,144	150A	100A	✓ (AC)
F210 0800	0,800	110	0,20	1,4	0,109	150A	100A	✓
F210 1100	1,000	100	0,20	2,9	0,068	150A	100A	✓
F210 1125	1,250	100	0,25	5,0	0,060	150A	100A	✓ (AC)
F210 1160	1,600	90	0,38	9,0	0,038	150A	100A	✓
F210 1200	2,000	90	0,45	9,5	0,032	150A	100A	✓
F210 1250	2,500	90	0,58	15	0,025	150A	50A	✓ (AC)
F210 1315	3,150	85	0,69	25	0,021	150A	50A	✓
F210 1400	4,000	85	0,75	41	0,016	100A	50A	✓
F210 1500	5,000	75	1,10	42	0,011	100A	50A	✓
F210 1630	6,300	65	1,20	67	0,008	100A	63A	✓
F210 2150	15,000	90	1,70	160	0,0022	125V / 100A	125V / 300A	

Permissible continuous operating current is ≤ 80 % at ambient temperature of 23 °C (73.4 °F).

Limits for Pre-arcing Time

Rated Current	1,0 x Irat	1,25 x Irat	2,0 x Irat	3,0 x Irat	10 x Irat
250mA ... 6,3A		> 1h	< 120s		0,01 ... 0,1s
15A	> 4h		< 1s	< 0,2s	

Soldering process parameters

Wave soldering		Reflow soldering	
Preheat temperature:	100°C - 160°C	Preheat temperature:	140°C - 165°C
Preheat time:	60 - 180s	Preheat time:	90 - 120s
Solder temperature	260°C max.	Peak temperature:	260°C max.
Dwell time:	5s	Soldering time > 200°C:	30s

Product characteristics

Body:	Polyamid PA 6 UL94-V0	Operating temperature:	-55°C - 125°C
Termination:	Sn-plating on Ni flash	Vibration resistance:	acc. to IEC 60068-2-6
Solderability:	245°C < 3s acc. to IEC 60068-2-58	Stock conditions:	+10°C - 60°C RH < 75%
Soldering heat resistance:	260°C 10s (wave) acc. to IEC 60068-2-58	Glow wire test:	acc. to IEC 60335-1 requirements IEC 60695-2-12, IEC 60695-2-13

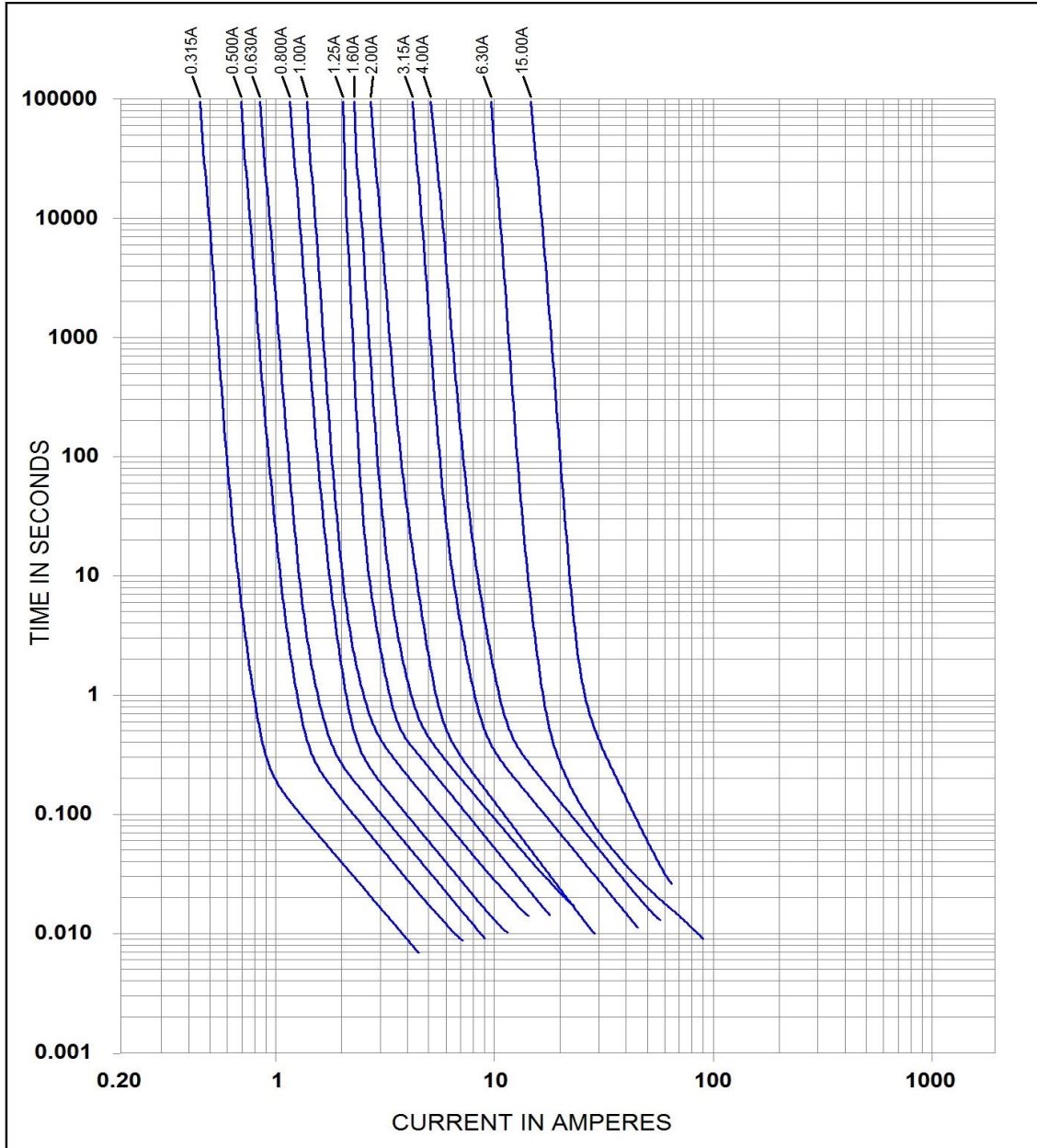
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Average time-current (I-t) curves



F210XXXX Series

Time Lag Fuse IEC60127-4T



Specifications are subject to change without notice.

Note: 1.00 means the number one with two decimal places.

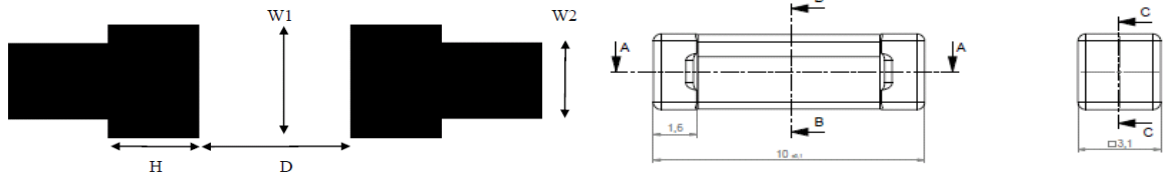
AKL V4.5 19.11.14

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Dimensions and recommended PCB layout

PCB recommended Layout for fuse series F210

Fuse dimensions (overall): (C-C) 3,1 x (B-B) 3,1 x (A-A) 10,1mm



Pad dimension for IR (reflow) soldering:

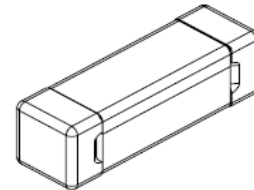
Pad height (H): 2,10 mm
Pad width (W1): 3,80 mm
Pad distance (D): 6,50 mm

Pad dimension for wave soldering:

Pad height (H): 2,50 mm
Pad width (W1): 4,00 mm
Pad distance (D): 6,50 mm

Care has to be taken to design the leading tracks to the fuse pads. Recommended min. values for DC applications with / without inductive load are:

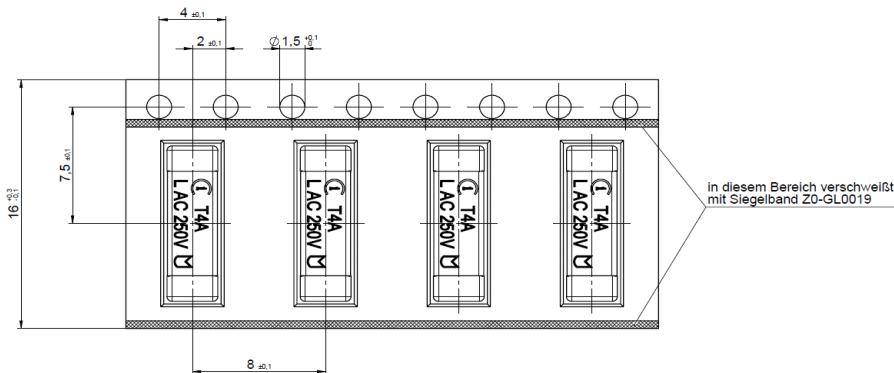
Fuse rated current	W2 copper layer 35µm	W2 copper layer 70µm
≤ 5 A	1,27 - 2,54 mm	1,27 mm
6,3 A	3,18 mm	1,90 mm
8 A	3,80 mm	1,90 mm
10 - 15 A	3,80 mm	2,54 mm



Packaging / Dimensions / Quantities per package unit

Tape and reel: 2500 pcs on a 330mm reel per EIA Standard 481

Reel dimensions in mm:



Ordering information

F21X NNNN X = 3: tape-and-reel (blister)
NNNN = Rated current regarding article table

Irat	amperecode
315mA	0315
500 mA	0500
630 mA	0630
800 mA	0800
1 A	1100
1,25 A	1125
1,6A	1160
2A	1200
2,5A	1250
3,15 A	1315
4A	1400
5A	1500
6,3A	1630
15A	2150

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