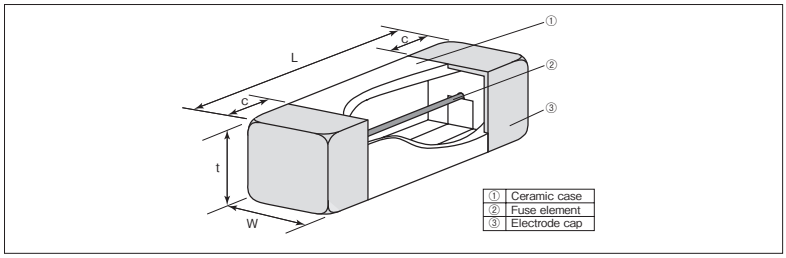
EU RoHS

CCF1N Chip Current Fuses



Body color : White

■Construction



■Features

- Surface mounting fuses suitable for primary and secondary circuits.
- Excellent mechanical strength with ceramic body.
- Stable fusing characteristics due to the original technology.
- Excellent Anti-Surge characteristics.
- Suitable for reflow and flow soldering.
- Products with lead free termination meet EU-RoHS requirements.

■Approvals Awarded

PSE (1～10A) Class B
UL248.14 File No.E171861 (250mA～15A)
c-UL(CSA)C22.2 No.248.14 File No.E171861
(250mA～15A)

■Applications

- Power supplies for note PCs
- Power supplies for Illumination inverters
- Copying machines, Laser beam printers
- Industrial equipment

■Dimensions

Type (Inch Size Code)	Dimensions (mm)				Weight (g) (1000pcs)
	L±0.2	W±0.2	t±0.2	c±0.2	
CCF1N (2410)	6.0	2.5	2.5	1.4	140

■Type Designation

Example

CCF	1	N	1		T	TE
Product Code	Style	Fusing Characteristics	Rated Current	Rated Voltage (UL)	Terminal Surface Material	Taping
		N:Normal blow		Nil: 125Va.c./60Vd.c. or 65Va.c./65Vd.c. D:125Va.c./160Vd.c.	T:Sn	TE:4mm pitch plastic embossed BK:Bulk

The terminal surface material lead free is standard.
Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS.
For further information on taping, please refer to APPENDIX C on the back pages.

■Ratings

Type	Rated Current	Rated Voltage	Interrupting Capacity	Fusing Characteristics		Internal R. (mΩ) Max.	Nominal Melting I²t (A²・s)	Taping & Q'ty/Reel (pcs)
				Rated Current	Fusing Time			TE
CCF1N0.4	400mA	UL (c-UL) AC 125V DC 60V (DC 160V)	UL (c-UL) AC 125V 50A DC 60V 50A (DC 160V)	UL (c-UL) 100% 200%	4h Min. 1s Max.	650	0.024	1,000
CCF1N0.5	500mA					510	0.030	
CCF1N0.63	630mA					390	0.052	
CCF1N0.8	800mA					250	0.125	
CCF1N1	1A	PSE AC 100V UL (c-UL) AC 125V DC 60V (DC 160V)	PSE AC 100V 100A UL (c-UL) AC 125V 50A DC 60V 50A (DC 160V)	PSE 130% 160% 200% UL (c-UL) 100% 200%	4h Min. 1h Max. 1s Max. 4h Min. 1s Max.	90.4	0.156	
CCF1N1.25	1.25A					75.9	0.220	
CCF1N1.6	1.6A					59.3	0.513	
CCF1N2	2A					42.9	0.814	
CCF1N2.5	2.5A					36.6	1.31	
CCF1N3.15	3.15A					26.0	2.37	
CCF1N4	4A					20.1	3.85	
CCF1N5	5A					15.3	6.5	
CCF1N6.3	6.3A					11.4	10.6	
CCF1N7	7A					10.6	12.8	
CCF1N8	8A					9.5	17.0	
CCF1N10	10A					7.5	27.7	
CCF1N12	12A	UL (c-UL) AC 65V DC 65V	UL (c-UL) AC 65V 50A DC 65V 50A	UL (c-UL) 100% 200%	4h Min. 60s Max.	4.5	73.5	
CCF1N15	15A					3.5	125.5	
CCF1N30	30A	DC 65V	DC 65V 100A	100% 200%	4h Min. 60s Max.	1.7	527.5	

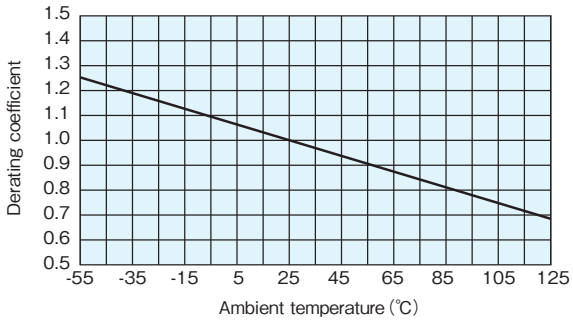
Operating Temp. Range : −55℃～+125℃

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.
Contact our sales representatives before you use our products for applications including automotives, medical equipment and aerospace equipment.
Malfunction or failure of the products in such applications may cause loss of human life or serious damage.

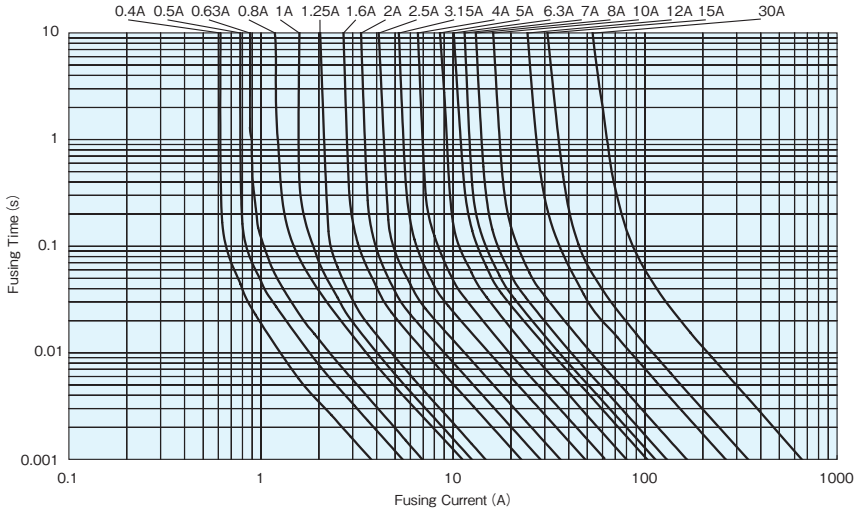
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■Deratings

- Stationary current
  Regard the peak of stationary current waveform as stationary current value when the stationary current is repeated pulse.
- Normal derating
  Normal derating of this product should be 0.7max. as standards.
- Deratings by ambient temperatures
  When using the products at the temperatures other than normal temperature (25℃ ±5℃), temperature adjustment will be required. Please refer to the derating coefficient as shown in the figure.



■Fusing Characteristic



■Performance

Test Items	Performance Requirements ΔR±%		Test Methods
	Limit	Typical	
Fusing characteristics	Within specified time. Insulation resistance shall not be less than 0.2MΩ	—	Fusing time measured under rated current×160% and×200%. (at 25℃)
Surface Temp. Rise	Max. Temp. Rise 140℃ (For PSE)	—	Surface Temp. should be measured by Rated current×115%.
	Max. Temp. Rise 75℃ (For UL)	—	Surface Temp. should be measured by Rated current×100%.
Bending test	No mechanical damage.	—	Distance between holding points 90mm, bent by 3mm at arte of 1mm/s.
Resistance to soldering heat	10	3	260℃±5℃, 10s±0.5s
Solderability	95% coverage min.	—	235℃±5℃, 3s±0.5s
Load life	10	5	70℃±2℃、1000h、 Rated current×70%, 1.5h ON/0.5h OFF cycle
Load life moisture	10	5	40℃±2℃、90%～95%RH、1000h、 Rated current×70%, 1.5h ON/0.5h OFF cycle
Rapid change of temperature	10	5	−55℃ (30min) /+125℃ (30min) 100 cycles

■Precautions for Use

- Store and use CCF products in dust-free room avoiding dew condensation, corrosive gas (H2S, SO2, HCℓ gas), etc. Otherwise the products are more likely to have lower solderability and fusing.
- High temperature affects on the product's performances. After mounting the products on your applications, be sure that the maximum temperature rise is 50 degrees or below and that if the circuit is interrupted or not under abnormal current.
- When you select fuse product, please make sure to confirm "Precautions for Use of Fusing Components" in this catalogue and ask KOA sales.

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