



### features

- Surface mount fuse suitable for primary and secondary circuits
- Ceramic case provides excellent mechanical strength
- Suitable for flow and reflow soldering
- Marking: White body color with black marking
- Products with lead-free terminations meet EU RoHS and China RoHS requirements

### dimensions and construction



Type	Dimensions inches (mm)			
	L	W	t	d
CCF	.236±.008 (6.0±0.2)	.098±.008 (2.5±0.2)	.098±.008 (2.5±0.2)	.055±.008 (1.4±0.2)

### ordering information

New Part #	CCF	1	N	1		T	TE
	Type	Style	Characteristic	Rated Current	Rated Voltage (UL)	Termination Material	Packaging
			N: Normal blow	Reference rating chart	Nil: 125Va.c./60Vd.c. or 65Va.c./65Vd.c. D: 125Va.c./160Vd.c.	T: Sn	TE: 4mm pitch embossed plastic (1,000 pieces/reel)

For further information on packaging, please refer to Appendix A.

## applications and ratings

Part Designation	Current Rating	Voltage Rating	Operating Temperature Range	Interrupting Capacity	Fusing Characteristics		Internal R. (mΩ) Max.	Normal Melting Pt (A <sup>2</sup> , seconds)
					Rated Current	Fusing Time		
CCF1N0.4	400mA	UL (c-UL) AC 125V DC 60V (DC 160V)	-55°C to +125°C	UL (c-UL) AC 125V 50A DC 60V 50A (DC 160V)	UL (c-UL) 100% 200%	4 hour min. 1 second max.	650	0.024
CCF1N0.5	500mA						510	0.030
CCF1N0.63	630mA						390	0.052
CCF1N0.8	800mA						250	0.125
CCF1N1	1A	PSE AC 100V		PSE AC 100V 100A	PSE 130% 160% 200%	4 hour min. 1 hour max. 1 second 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	UL (c-UL) AC 125V DC 60V		UL (c-UL) AC 125V 50A DC 60V 50A	UL (c-UL) 100% 200%	4 hour min. 1 second max.	36.6	1.31
CCF1N3.15	3.15A						26	2.37
CCF1N4	4A						20.1	3.85
CCF1N5	5A						15.3	6.5
CCF1N6.3	6.3A	(DC 160V)		(DC 160V)			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%	4 hour min. 60 seconds max.	4.5	73.5	
CCF1N15	15A					3.5	125.5	

## environmental applications

### Derating Curve



### Fusing Characteristics



### Performance Characteristics

Parameter	Requirement $\Delta R \pm \%$		Test Method
	Limit	Typical	
Fusing Characteristics	Within specified time. No restrike	—	Fusing time measured under rated current x 160% and 200%
Surface Temperature Rise	Max. Temp. Rise 140°C	—	Surface temperature should be measured by rated current x 115%
	Max. Temp. Rise 75°C	—	Surface temperature should be measured by rated current x 100%
Bending Test	No mechanical damages	—	Distance between holding points 90mm, bending width 3mm, 1 time
Resistance to Soldering Heat	$\pm 10\%$	$\pm 3\%$	260°C $\pm 5^\circ\text{C}$ , 10 seconds $\pm 0.5$ seconds
Solderability	$\pm 95\%$ coverage min.	—	235°C $\pm 5^\circ\text{C}$ , 3 seconds $\pm 0.5$ seconds
Load Life	$\pm 10\%$	$\pm 5\%$	70°C $\pm 2^\circ\text{C}$ , 1000 hours, rated current x 70%, 1.5 hr ON, 0.5 hr OFF cycle
Load Life Moisture	$\pm 10\%$	$\pm 5\%$	40°C $\pm 2^\circ\text{C}$ , 90 - 95% RH, 1000 hours, rated current x 70%, 1.5 hr ON, 0.5 hr OFF cycle
Rapid Change of Temperature	$\pm 10\%$	$\pm 5\%$	-55°C (30 minutes), +125°C (30 minutes), 100 cycles

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