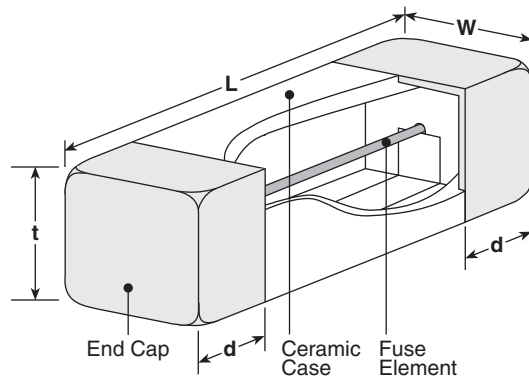




features

- Surface mount fuse suitable for primary and secondary circuits
- Ceramic case provides excellent mechanical strength
- Suitable for flow and reflow soldering
- 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

| | | | | | | |
|------|-------|----------------|------------------------|---|----------------------|--|
| 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.

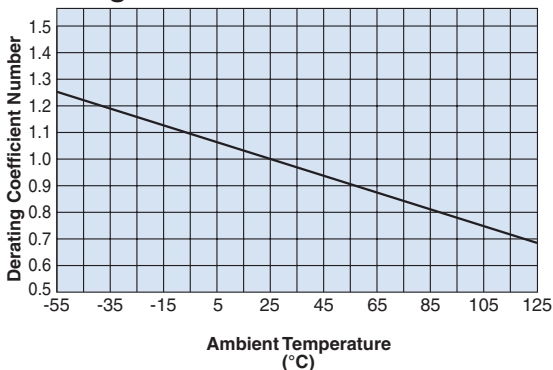
applications and ratings

| Part Designation | Current Rating | Voltage Rating | Operating Temperature Range | Interrupting Capacity | Fusing Characteristics | | Internal R. (mΩ) Max. | Normal Melting Pt (A ² , 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 (DC 160V) | | UL (c-UL) AC 125V 50A DC 60V 50A (DC 160V) | 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 | 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% | 4 hour min. 1 second max. | 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 | |

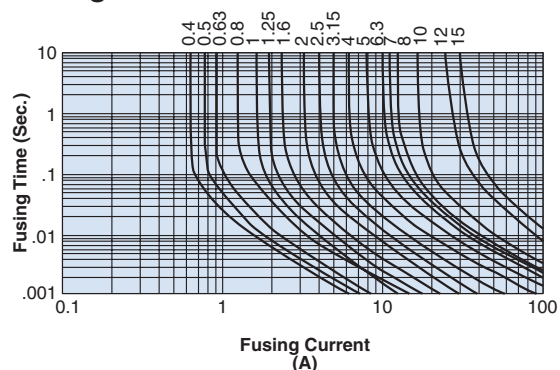
High rated voltage products (DC 160V: 400mA to 10A) are available. Please contact KOA Speer.

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, bent by 3mm at rate of 1mm/s |
| Resistance to Soldering Heat | $\pm 10\%$ | $\pm 3\%$ | 260°C $\pm 5^\circ\text{C}$, 10 seconds ± 0.5 seconds |
| Solderability | $\pm 95\%$ coverage min. | — | 235°C $\pm 5^\circ\text{C}$, 3 seconds ± 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 |

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

11/06/18