



Features

- Two resistance-matched PTCs in a plastic housing
- Narrow resistance tolerance
- RoHS compliant*

Applications

Used as a secondary overcurrent protection device in:

- Customer Premise Equipment (CPE)
- Central Office (CO)
- Access equipment

CMF-SDP Series - Telecom CPTC Resettable Fuses

Electrical Characteristics

| Model | Induction Voltage Withstand | Rated Voltage | Rated Resistance (RN) | | Resistance Matching in Housing | Hold Current | Trip Current | Imax @ 230 VAC | Typ. Time to Trip @ Imax / 230 VAC |
|------------|-----------------------------|---------------|-----------------------|-----------|--------------------------------|--------------|--------------|----------------|------------------------------------|
| | VAC | | Volts | Ohms | | | | | |
| CMF-SDP07 | 250 | 230 | 7 | ±20 % | ≤1.0 | 0.080 | 0.200 | 3.0 | 0.45 |
| CMF-SDP10 | 250 | 230 | 10 | ±20 % | ≤1.0 | 0.180 | 0.360 | 1.0 | 3.8 |
| CMF-SDP10A | 250 | 230 | 10 | ±20 % | ≤1.0 | 0.150 | 0.360 | 1.0 | 3.8 |
| CMF-SDP25 | 250 | 230 | 25 | ±20 % | ≤1.0 | 0.130 | 0.260 | 2.8 | 0.2 |
| CMF-SDP25A | 250 | 230 | 25 | ±20 % | ≤1.0 | 0.130 | 0.260 | 2.8 | 0.3 |
| CMF-SDP35 | 600 | 230 | 35 | +15/-20 % | ≤1.0 | 0.110 | 0.230 | 4.6 | 0.06 |
| CMF-SDP35A | 600 | 230 | 35 | +15/-20 % | ≤1.0 | 0.110 | 0.230 | 2.5 | 0.2 |
| CMF-SDP50 | 600 | 230 | 50 | ±15 % | ≤1.0 | 0.090 | 0.190 | 2.5 | 0.13 |
| CMF-SDP50A | 600 | 230 | 50 | ±15 % | ≤1.0 | 0.090 | 0.190 | 2.5 | 0.2 |
| CMF-SDP75 | 600 | 230 | 75 | ±20 % | ≤2.0 | 0.070 | 0.150 | 2.5 | 0.12 |

Operating Temperature Range: -40 °C to +125 °C.

Test Procedures And Requirements For Model CMF-SDP Series

| Test | Primary Protection | Test Condition | Requirements |
|--|--------------------|--|----------------------|
| Mains Power Contact - ITU-T K.20, K.21 | None | 230 V rms, 10 ohms, 15 Min. | (Ri-Rf) / Ri < ±10 % |
| Power Induction - ITU-T K.20, K.21 | None | 600V rms, 600 ohms, 0.2 seconds, 10 cycles, every 1 Min. | (Ri-Rf) / Ri < ±10 % |
| Power Induction - ITU-T K.20, K.21 | GDT | 600 V rms, 600 ohms, 1 second, 10 cycles, every 1 Min. | (Ri-Rf) / Ri < ±10 % |
| Power Induction - ITU-T K.20, K.21 | GDT | 600 V rms, 200 ohms, 1 second, 10 cycles, every 1 Min. | (Ri-Rf) / Ri < ±10 % |
| Lightning Surge - ITU-T K.20, K.21 | | 10/700 μs, 25 ohms, 1.0 kV, 10 Tests, every 1 Min. | (Ri-Rf) / Ri < ±10 % |
| Lightning Surge | | 10/1000 μs, 60 ohms, 1.5 kV, 30 Tests, every 3 Min. | (Ri-Rf) / Ri < ±10 % |

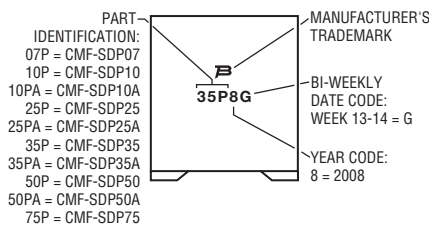
Ri = R initial; Rf = R final

Moisture Sensitivity Level (MSL) Level 1

ESD Classification - HBM..... Class 6

Typical Part Marking

Represents total content. Layout may vary.



How to Order

CMF - SD P 35 A - XX - 2

| | |
|-----------------------------|--|
| Product Designator | CMF - SD P 35 A - XX - 2 |
| Style | SD = Surface Mount Dual Pkg. |
| Housing | P = Plastic |
| Rated Resistance (RN) | 7-75 (7-75 Ohms) |
| Footprint and Height Option | Blank = Standard Product A = Reduced Footprint and Height |
| Resistance Tolerance Option | Blank = Standard -XX = XX %; e.g. -10 = ±10 % |
| Packaging | - 2 = Tape & Reel |

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*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

Specifications are subject to change without notice.

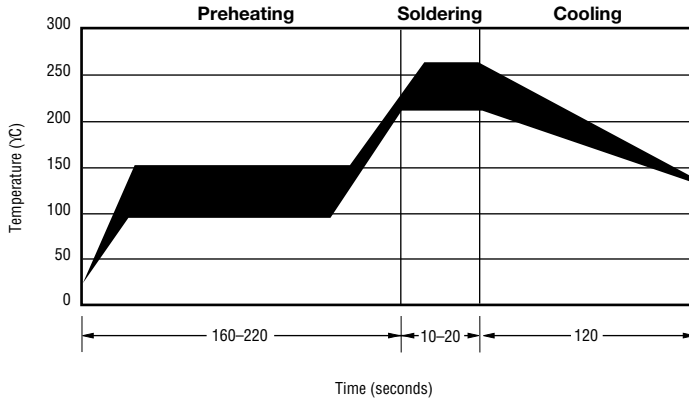
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

CMF-SDP Series - Telecom CPTC Resettable Fuses

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Solder Reflow Recommendations



Solder reflow

- Recommended reflow methods: IR, vapor phase oven, hot air oven.
- Devices are not designed to be wave soldered to the bottom side of the board.
- Gluing the devices is not recommended.
- Recommended maximum paste thickness is 0.25 mm (.010 inch).
- Devices can be cleaned using standard industry methods and solvents.

Note:

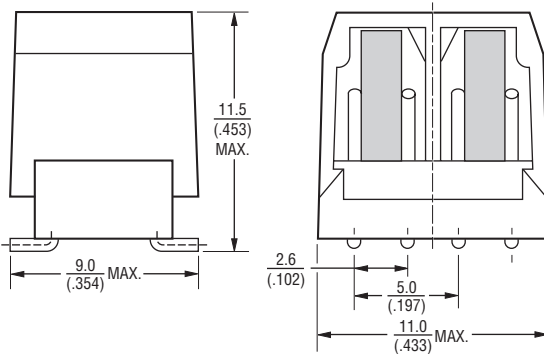
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Rework

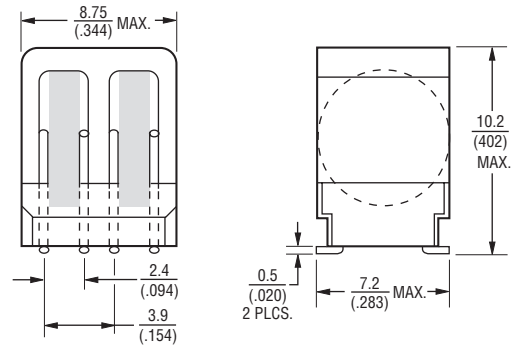
- A device should not be reworked.

Product Dimensions

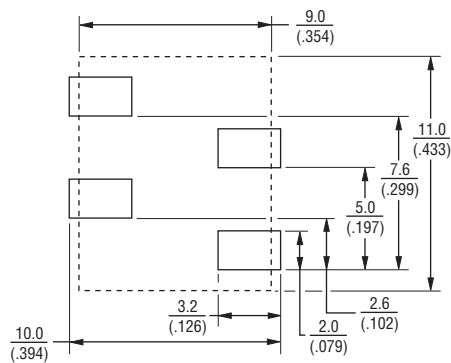
CMF-SDP05, 07, 10, 25, 35, 50 & 75



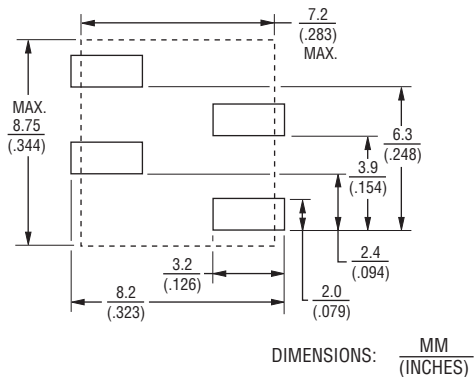
CMF-SDP10A, 25A, 35A, 50A & 75A



Recommended Pad Layout



Packaging - Tape and Reel: 350 pcs. per reel



Packaging - Tape and Reel: 400 pcs. per reel

DIMENSIONS: $\frac{\text{MM}}{\text{INCHES}}$

CMF-SDP SERIES, REV. F, 04/18

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CMF-SDP Series Tape and Reel Specifications

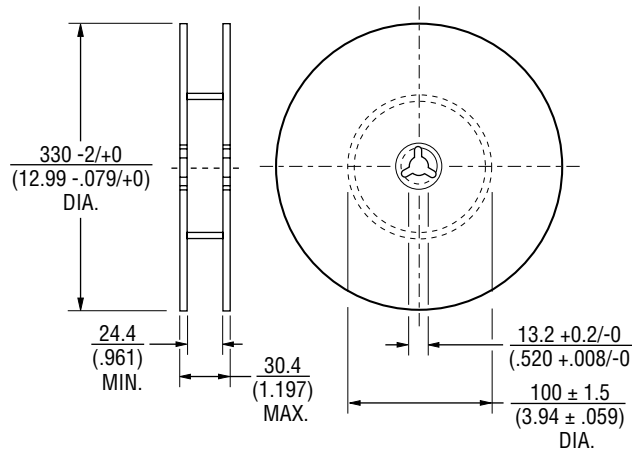
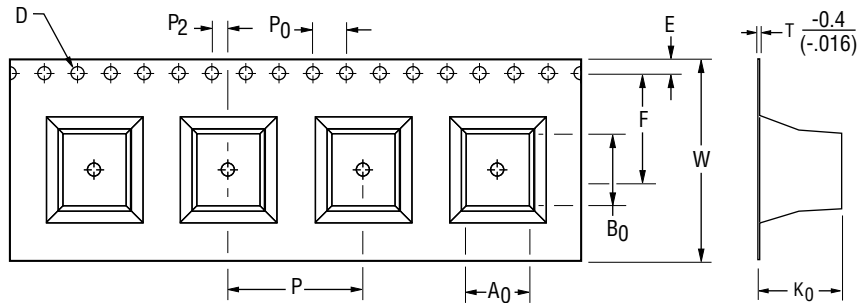
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Tape Dimensions per EIA 481-2

CMF-SDP10-2, CMF-SDP25-2,
CMF-SDP35-2, CMF-SDP50-2,
CMF-SDP75-2

CMF-SDP10A-2, CMF-SDP25A-2,
CMF-SDP35A-2, CMF-SDP50A-2

| | | |
|----------------|--|--|
| W | $\frac{24.0 \pm 0.5}{(0.945 \pm 0.020)}$ | $\frac{24.0 \pm 0.5}{(0.945 \pm 0.020)}$ |
| P ₀ | $\frac{4.0}{(0.157)}$ | $\frac{4.0}{(0.157)}$ |
| P | $\frac{16.0}{(0.630)}$ | $\frac{16.0}{(0.630)}$ |
| P ₂ | $\frac{2.0}{(0.079)}$ | $\frac{2.0}{(0.079)}$ |
| A ₀ | $\frac{9.2 \pm 0.2}{(0.362 \pm 0.008)}$ | $\frac{7.5 \pm 0.2}{(0.295 \pm 0.008)}$ |
| B ₀ | $\frac{11.0 \pm 0.2}{(0.441 \pm 0.008)}$ | $\frac{9.0 \pm 0.2}{(0.354 \pm 0.008)}$ |
| D | $\frac{1.5}{(0.059)}$ | $\frac{1.5}{(0.059)}$ |
| F | $\frac{11.5}{(0.453)}$ | $\frac{11.5}{(0.453)}$ |
| E | $\frac{1.75}{(0.069)}$ | $\frac{1.75}{(0.069)}$ |
| t | $\frac{0.5 \pm 0.15}{(0.020 \pm 0.006)}$ | $\frac{0.5 \pm 0.15}{(0.020 \pm 0.006)}$ |
| K ₀ | $\frac{11.5 \pm 0.2}{(0.453 \pm 0.008)}$ | $\frac{10.0 \pm 0.2}{(0.394 \pm 0.008)}$ |



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

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[CMF-SDP50A-2](#)