



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	Tolerance				
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 %

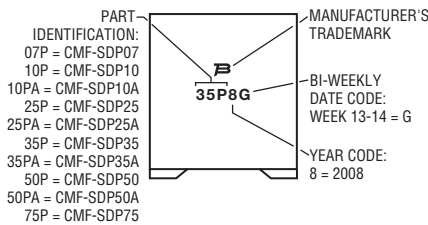
Ri = R initial; Rf = R final

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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WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

*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.

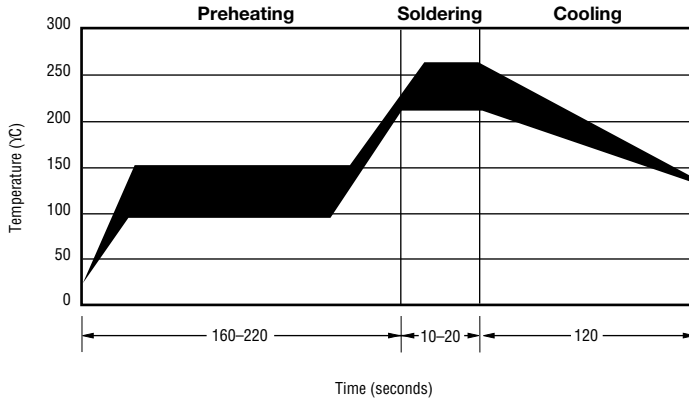
Users should verify actual device performance in their specific applications.

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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:

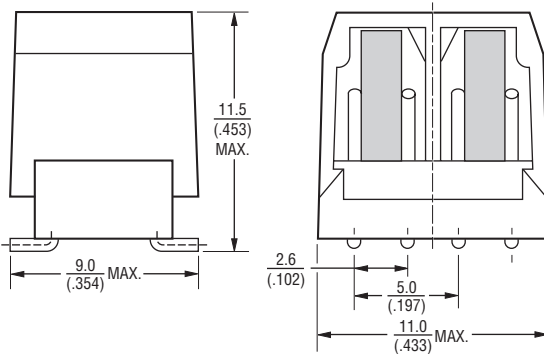
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Rework

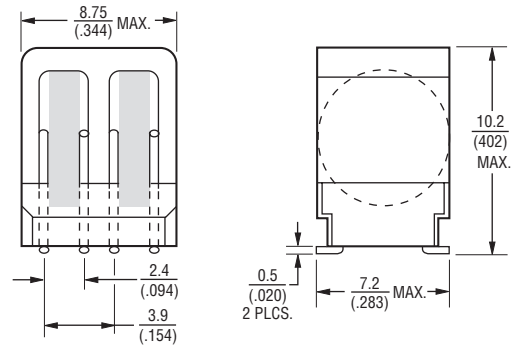
- A device should not be reworked.

Product Dimensions

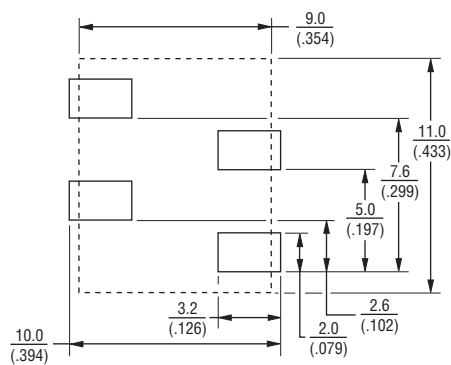
CMF-SDP05, 07, 10, 25, 35, 50 & 75



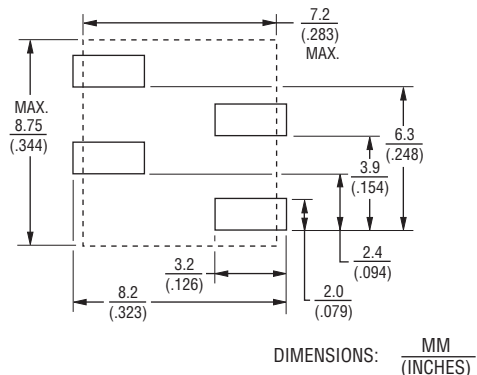
CMF-SDP10A, 25A, 35A, 50A & 75A



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

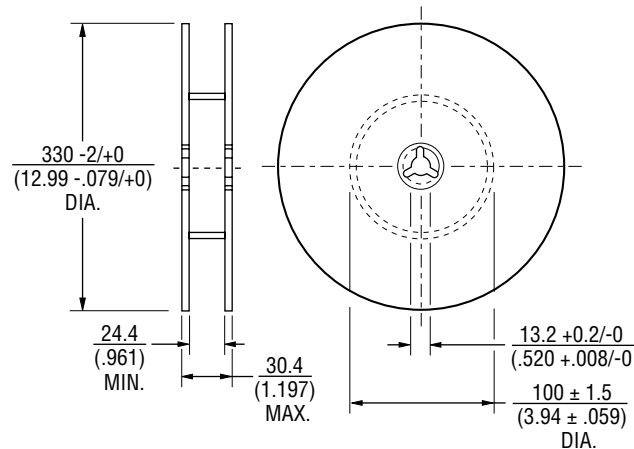
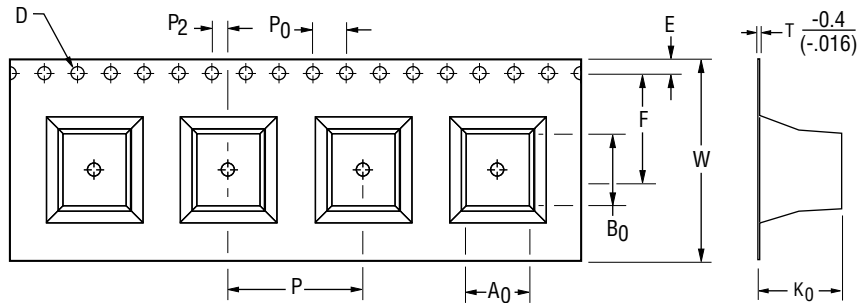
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Tape Dimensions per EIA 481-2

CMF-SDP10-2, CMF-SDP25-2,
CMF-SDP-35-2, 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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