THE DATASHEET OF

CMF-SDP50-2

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	Ohms	Amps @ 25 °C	Amps @ 25 °C	Amps	Seconds
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

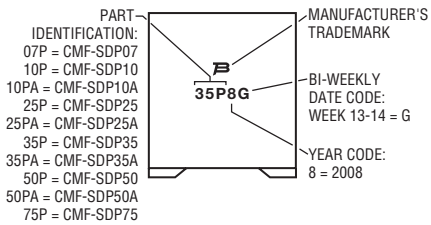
Test	Primary Protection	Test Condition	Requirements
Mains Power Contact - ITU-T K.20, K.21	None	230 V rms, 10 ohms, 15 Min.	(Ri-Rf) / Ri < ±10 %
Power Induction - ITU-T K.20, K.21	None	600V rms, 600 ohms, 0.2 seconds, 10 cycles, every 1 Min.	(Ri-Rf) / Ri < ±10 %
Power Induction - ITU-T K.20, K.21	GDT	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

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

BOURNS®

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www.bourns.com

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.

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Users should verify actual device performance in their specific applications.
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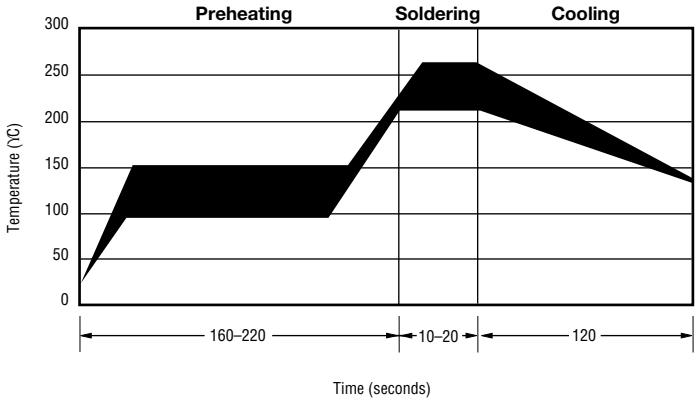
Solder Reflow Recommendations



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:

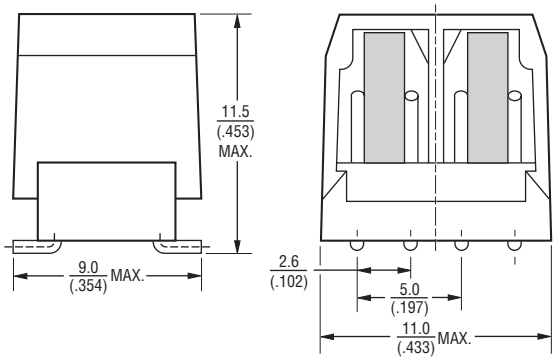
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Rework

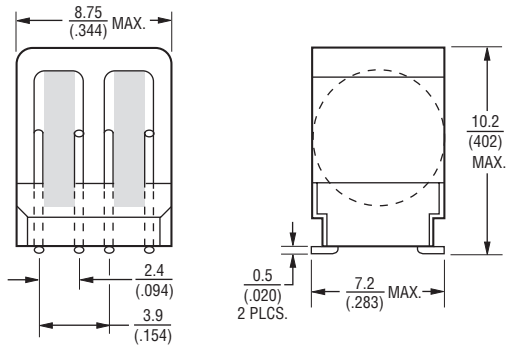
- A device should not be reworked.

Product Dimensions

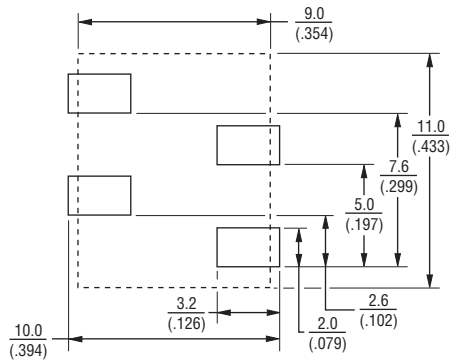
CMF-SDP05, 07, 10, 25, 35, 50 & 75



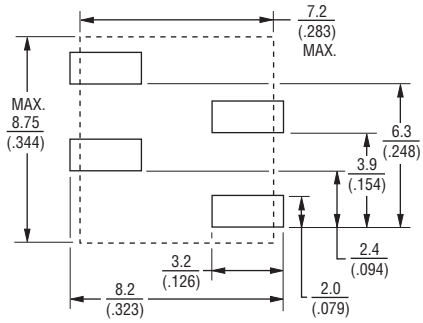
CMF-SDP10A, 25A, 35A, 50A & 75A



Recommended Pad Layout



Packaging - Tape and Reel: 350 pcs. per reel



Packaging - Tape and Reel: 400 pcs. per reel

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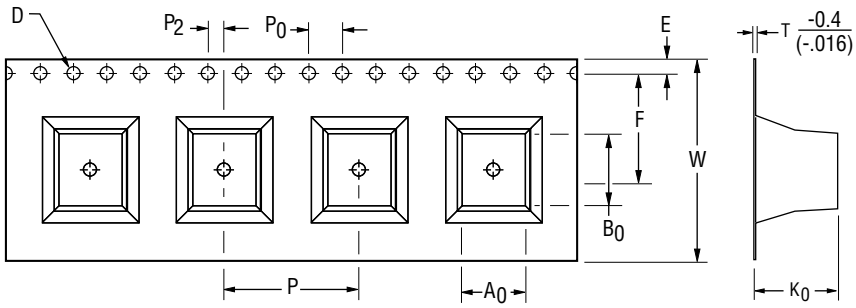
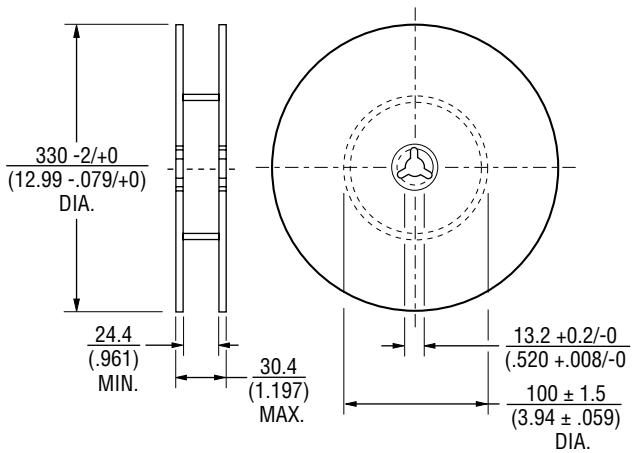
CMF-SDP Series Tape and Reel Specifications

BOURNS®

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	24.0 ±0.5 (0.945 ±0.020)	24.0 ±0.5 (0.945 ±0.020)
P_0	4.0 (0.157)	4.0 (0.157)
P	16.0 (0.630)	16.0 (0.630)
P_2	2.0 (0.079)	2.0 (0.079)
A_0	9.2 ± 0.2 (0.362 ± 0.008)	7.5 ± 0.2 (0.295 ± 0.008)
B_0	11.0 ± 0.2 (0.441 ± 0.008)	9.0 ± 0.2 (0.354 ± 0.008)
D	1.5 (0.059)	1.5 (0.059)
F	11.5 (0.453)	11.5 (0.453)
E	1.75 (0.069)	1.75 (0.069)
t	0.5 ± 0.15 (0.020 ± 0.006)	0.5 ± 0.15 (0.020 ± 0.006)
K_0	11.5 ± 0.2 (0.453 ± 0.008)	10.0 ± 0.2 (0.394 ± 0.008)





DIMENSIONS: MM (INCHES)

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