

Technical Summary and Application Guidelines

Guidlines for Surface Mount Footprints



MECHANICAL PROPERTIES OF CAPACITORS

The component footprint is defined as the maximum board area taken up by the terminators.

In case of molded F-series, the footprint dimensions are given by A, B, and C in the diagram, which corresponds to W_2 max., S max and L max. for the component (Please see datasheet). The footprint is symmetric about the center lines.

For reflow soldering, dimensions PL ("b" or "b*" for conformal series) (Pad Length), PW ("a" for conformal series) (Pad Width), and PSL (Pad Set Length) have been calculated.

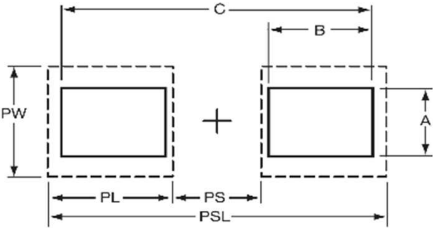
For wave soldering the pad width should be reduced to less than the termination width to minimize the amount of solder pick up while ensuring that a good joint can be produced.

In the case of mounting conformal coated capacitors, excentering (Δc) is needed to except anode tab.(+)

Nominal footprint and pad dimensions for each case size are given in the following tables:

MOLDED F-SERIES—MOLDED: millimeters (inches)

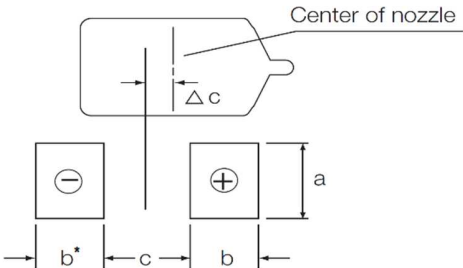
Case Size		PSL	PL	PS	PW
Series	U	1.20 (0.047)	0.40 (0.016)	0.40 (0.016)	0.35 (0.014)
Molded F38, F91, F92, F93, F97, F98	M	2.00 (0.079)	0.70 (0.028)	0.60 (0.024)	0.65 (0.026)
	S	2.20 (0.087)	0.70 (0.028)	0.80 (0.032)	0.90 (0.035)
	P	2.60 (0.102)	1.10 (0.043)	0.40 (0.016)	1.00 (0.039)
	A	3.80 (0.150)	1.40 (0.055)	1.00 (0.039)	1.30 (0.051)
	B	4.10 (0.161)	1.40 (0.055)	1.30 (0.051)	2.30 (0.091)
	C	6.70 (0.267)	2.00 (0.079)	2.70 (0.106)	2.30 (0.091)
	N	8.00 (0.315)	2.00 (0.079)	4.00 (0.157)	2.50 (0.098)



These recommendations (also in compliance with EIA) are guidelines only. With care and control, smaller footprints may be considered for reflow soldering.

CONFORMAL F-SERIES—CONFORMAL: millimeters (inches)

Case Size		a	b	b*	c	Δc
F95, AUDIO F95 Conformal	R·P	1.40 (0.055)	0.60 (0.024)	0.50 (0.020)	0.70 (0.028)	0.20 (0.008)
	Q·S	1.70 (0.067)	0.70 (0.028)	0.60 (0.024)	1.10 (0.043)	0.20 (0.008)
	A	1.80 (0.071)	0.70 (0.028)	0.60 (0.024)	1.10 (0.043)	0.20 (0.008)
	T	2.60 (0.102)	0.70 (0.028)	0.60 (0.024)	1.20 (0.047)	0.20 (0.008)
	B	2.60 (0.102)	0.80 (0.032)	0.70 (0.028)	1.10 (0.043)	0.20 (0.008)
F72 Conformal	M	5.80 (0.228)	1.20 (0.047)	1.20 (0.047)	3.90 (0.154)	0.50 (0.020)
F75 Conformal	U·C	3.00 (0.118)	1.20 (0.047)	1.20 (0.047)	3.30 (0.130)	0.50 (0.020)
	R·M	5.80 (0.228)	1.20 (0.047)	1.20 (0.047)	3.90 (0.154)	0.50 (0.020)



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