

Surface Mount Aluminum Electrolytic Capacitors Case Size Data

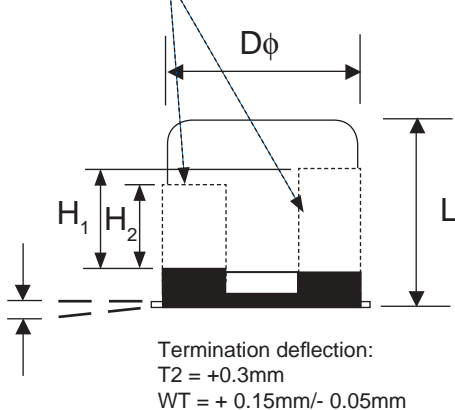
CASE DIMENSIONS (mm)*

Case Size	D ϕ ± 0.5	L max.	A ± 0.2	B ± 0.2	I ± 0.2	W	P ± 0.2	R	S	T
3 x 5.5	3.0	5.5	3.3	3.3	1.5	0.45 ~ 0.8	0.6	-	-	-
4 x 4.6	4.0	4.6	4.3	4.3	1.8	0.5 ~ 0.8	1.0	-	-	-
4 x 5.5	4.0	5.5	4.3	4.3	1.8	0.5 ~ 0.8	1.0	-	-	-
4 x 6.1	4.0	6.1	4.3	4.3	1.8	0.5 ~ 0.8	1.0	-	-	-
4 x 6.3	4.0	6.3	4.3	4.3	1.8	0.5 ~ 0.8	1.0	-	-	-
5 x 4.6	5.0	4.6	5.3	5.3	2.1	0.5 ~ 0.8	1.4	-	-	-
5 x 5.5	5.0	5.5	5.3	5.3	2.1	0.5 ~ 0.8	1.4	-	-	-
5 x 6.1	5.0	6.1	5.3	5.3	2.2	0.5 ~ 0.8	1.5	-	-	-
5 x 6.3	5.0	6.3	5.3	5.3	2.2	0.5 ~ 0.8	1.5	-	-	-
6.3 x 4.6	6.3	4.6	6.6	6.6	2.5	0.5 ~ 0.8	2.2	-	-	-
6.3 x 5.5	6.3	5.5	6.6	6.6	2.5	0.5 ~ 0.8	2.2	-	-	-
6.3 x 6.1	6.1	6.6	6.6	6.6	2.6	0.5 ~ 0.8	1.8	-	-	-
6.3 x 6.3	6.3	6.3	6.6	6.6	2.5	0.5 ~ 0.8	2.2	-	-	-
6.3 x 8	6.3	8.0	6.6	6.6	2.5	0.5 ~ 0.8	2.2	-	-	-
8 x 6.5	8.0	6.5	8.3	8.3	3.4	0.5 ~ 0.8	2.2	-	-	-
8 X 10.5	8.0	10.5	8.3	8.3	2.9	0.7 ~ 1.0	3.2	-	-	-
8 X 10.8	8.0	10.8	8.3	8.3	2.9	0.7 ~ 1.0	3.2	-	-	-
10 x 8	10.0	8.0	10.3	10.3	3.2	0.7 ~ 1.4	4.6	-	-	-
10 x 10.5	10.0	10.5	10.3	10.3	3.2	0.7 ~ 1.4	4.6	-	-	-
10 x 10.8	10.0	10.8	10.3	10.3	3.2	0.7 ~ 1.4	4.6	-	-	-
10 x 14	10.0	14.0	10.3	10.3	3.5	0.7 ~ 1.4	4.6	-	-	-
10 x 18	10.0	18.5	10.3	10.3	3.5	1.1 ~ 1.4	4.6	-	-	-
10 x 22	10.0	22.5	10.3	10.3	3.5	1.1 ~ 1.4	4.6	-	-	-
12.5 x 14	12.5	14.0	12.8	12.8	4.5	0.6 ~ 1.4	4.6	-	-	-
12.5 x 14WT	12.5	14.0	12.8	12.8	4.5	0.9 ~ 1.5	4.6	-	-	-
12.5 x 17T2	12.5	17.5	13.5	13.5	4.7	0.6 ~ 1.2	4.4	-	-	-
12.5 x 17WT	12.5	17.5	13.5	13.5	4.7	0.9 ~ 1.5	4.4	2.2	7.1	2.4
12.5 x 22	12.5	22.5	13.5	13.5	4.7	0.6 ~ 1.2	4.4	-	-	-
16 x 17T2	16.0	17.5	17.0	17.0	5.5	0.9 ~ 1.5	6.7	-	-	-
16 x 17WT	16.0	17.5	17.0	17.0	5.5	1.2 ~ 1.6	6.7	3.0	9.0	1.9
16 x 22T2	16.0	22.5	17.0	17.0	5.5	0.9 ~ 1.5	6.7	-	-	-
16 x 22WT	16.0	22.5	17.0	17.0	5.5	1.2 ~ 1.6	6.7	3.0	9.0	1.9
18 x 17T2	18.0	17.5	19.0	19.0	6.5	0.9 ~ 1.5	6.7	-	-	-
18 x 17WT	18.0	17.5	19.0	19.0	6.5	1.2 ~ 1.6	6.7	3.0	11.0	1.9
18 x 22T2	18.0	22.5	19.0	19.0	6.5	0.9 ~ 1.5	6.7	-	-	-
18 x 22WT	18.0	22.5	19.0	19.0	6.5	1.2 ~ 1.6	6.7	3.0	11.0	1.9

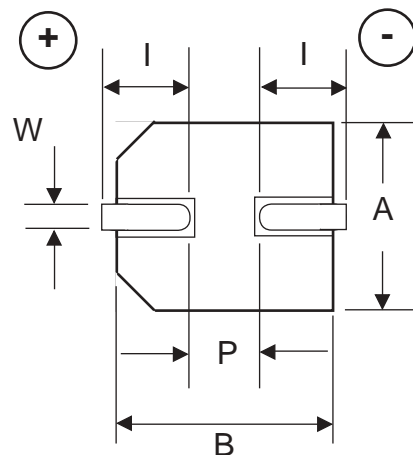
Anti-Vibration Skirt
NACK & NACZF
12.5, 16 & 18mm

H₁ 12.5mm Dia. = 9mm
16 & 18mm Dia = 10mm

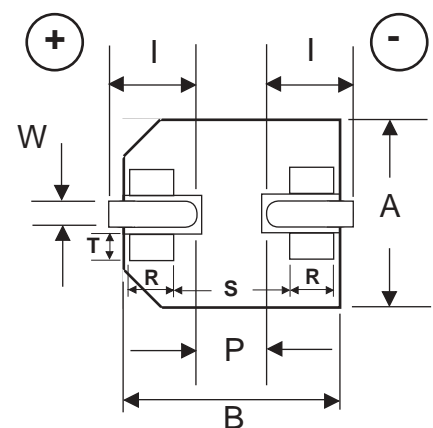
H₂ 12.5mm Dia. = 10mm
16 & 18mm Dia = 11mm



T2 STYLE



WT STYLE



Surface Mount Aluminum Electrolytic Capacitors Packaging Data

CARRIER TAPE

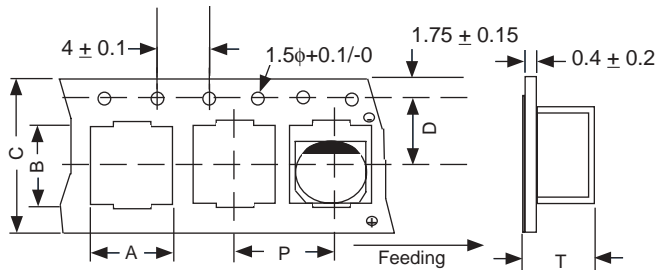
Case Size	A ±0.5	B ±0.2	C ±0.3	D ±0.1	P ±0.1	T ±0.2
3 x 5.5	3.7	3.7	12.0	5.5	8.0	5.8
4 x 4.6	4.7	4.7	12.0	5.5	8.0	5.1
4 x 5.5	4.7	4.7	12.0	5.5	8.0	5.8
4 x 6.1	4.7	4.7	12.0	5.5	8.0	6.4
4 x 6.3	4.7	4.7	12.0	5.5	8.0	6.6
5 x 4.6	5.7	5.7	12.0	5.5	12.0	5.1
5 x 5.5	5.7	5.7	12.0	5.5	12.0	5.8
5 x 6.1	5.7	5.7	12.0	5.5	12.0	6.4
5 x 6.3	5.7	5.7	12.0	5.5	12.0	6.6
6.3 x 4.6	7.0	7.0	16.0	7.5	12.0	5.1
6.3 x 5.5	7.0	7.0	16.0	7.5	12.0	5.8
6.3 x 6.1	7.0	7.0	16.0	7.5	12.0	6.4
6.3 x 6.3	7.0	7.0	16.0	7.5	12.0	6.6
6.3 x 8	7.0	7.0	16.0	7.5	12.0	8.3
8 x 6.5	8.7	8.7	16.0	7.5	12.0	6.8
8 X 10.5	8.7	8.7	16.0	7.5	12.0	11.1
8 X 10.8	8.7	8.7	16.0	7.5	12.0	11.1
10 x 8	10.7	10.7	24.0	11.5	16.0	8.3
10 x 10.5	10.7	10.7	24.0	11.5	16.0	11.2
10 x 10.8	10.7	10.7	24.0	11.5	16.0	11.2
10 x 14	10.7	10.7	32.0	14.2	20.0	14.5
10 x 18	10.7	10.7	32.0	14.2	20.0	18.5
10 x 22	10.7	10.7	32.0	14.2	20.0	22.5
12.5 x 14	13.2	13.2	32.0	14.2	24.0	14.2
12.5 x 14WT	14.0	14.0	32.0	14.2	24.0	14.2
12.5 x 17T2	14.0	14.0	32.0	14.2	24.0	17.5
12.5 x 17WT	14.0	14.0	32.0	14.2	24.0	17.5
12.5 x 22	14.0	14.0	32.0	14.2	24.0	22.5
16 x 17T2	17.5	17.5	44.0	20.2	28.0	17.5
16 x 17WT	17.5	17.5	44.0	20.2	28.0	17.5
16 x 22T2	17.5	17.5	44.0	20.2	28.0	22.5
16 x 22WT	17.5	17.5	44.0	20.2	28.0	22.5
18 x 17T2	19.5	19.5	44.0	20.2	32.0	17.5
18 x 17WT	19.5	19.5	44.0	20.2	32.0	17.5
18 x 22T2	19.5	19.5	44.0	20.2	32.0	22.5
18 x 22WT	19.5	19.5	44.0	20.2	32.0	22.5

STANDARD REEL 330mm (13") OPTIONAL REEL 380mm (15")

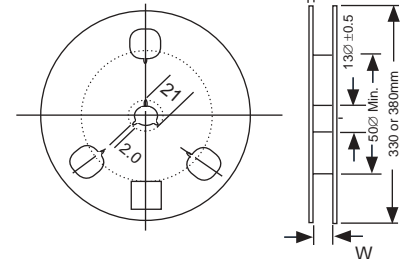
Case Size	W ±1.0	Quantity Per Reel	
		13" Reel (Std)	15" Reel (Opt.)
3 x 5.5	14.0	1,500 pcs	2,000 pcs
4 x 4.6	14.0	1,500 pcs	2,000 pcs
4 x 5.5	14.0	1,500 pcs	2,000 pcs
4 x 6.1	14.0	1,200 pcs	2,000 pcs
4 x 6.3	14.0	1,200 pcs	2,000 pcs
5 x 4.6	14.0	1,000 pcs	1,000 pcs
5 x 5.5	14.0	1,000 pcs	1,000 pcs
5 x 6.1	14.0	800 pcs	1,000 pcs
5 x 6.3	14.0	800 pcs	1,000 pcs
6.3 x 4.6	18.0	1,000 pcs	1,000 pcs
6.3 x 5.5	18.0	1,000 pcs	1,000 pcs
6.3 x 6.1	18.0	800 pcs	1,000 pcs
6.3 x 6.3	18.0	500 pcs	1,000 pcs
6.3 x 8	18.0	500 pcs	900 pcs
8 x 6.5	18.0	800 pcs	1,000 pcs
8 X 10.5	26.0	300 pcs	500 pcs
8 X 10.8	26.0	300 pcs	500 pcs
10 x 8	26.0	400 pcs	500 pcs
10 x 10.5	26.0	300 pcs	500 pcs
10 x 10.8	26.0	300 pcs	500 pcs
10 x 14	34.0	250 pcs	300 pcs
10 x 18	34.0	250 pcs	300 pcs
10 x 22	34.0	250 pcs	300 pcs
12.5 x 14	34.0	200 pcs	-
12.5 x 17	34.0	150 pcs	-
12.5 x 22	34.0	125 pcs	-
16 x 17	46.0	125 pcs	-
16 x 22	46.0	75 pcs	-
18 x 17	46.0	125 pcs	-
18 x 22	46.0	75 pcs	-

TAPING SPECIFICATIONS (mm)

1. Leader and ending tape: Minimum 10 empty pockets and 20 cm of cover tape.
2. Connection: within 3 connection per reel.

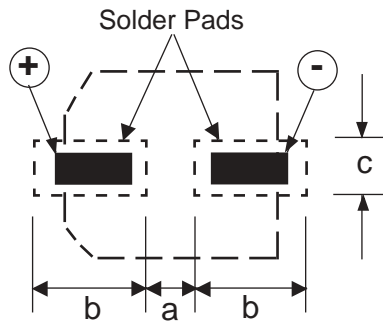


REEL



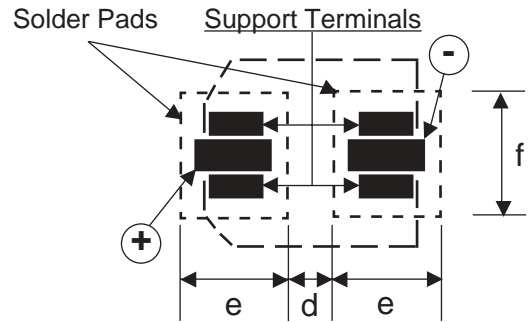
RECOMMENDED LAND PATTERN (mm) STANDARD TERMINAL

Case Dia.	a	b	c
3	0.8	2.2	1.6
4	1.0	2.6	1.8
5	1.4	3.0	1.8
6.3	2.1	3.5	1.8
8x6.5	2.2	4.5	1.6
8	3.0	4.1	2.2
10	4.3	4.4	2.5
10x14 10x18	4.0	4.5	2.0
12.5x14	4.2	5.8	2.5
12.5x17T2	4.3	5.8	2.5
16T2	6.0	6.5	4.0
18T2	6.0	7.5	3.5

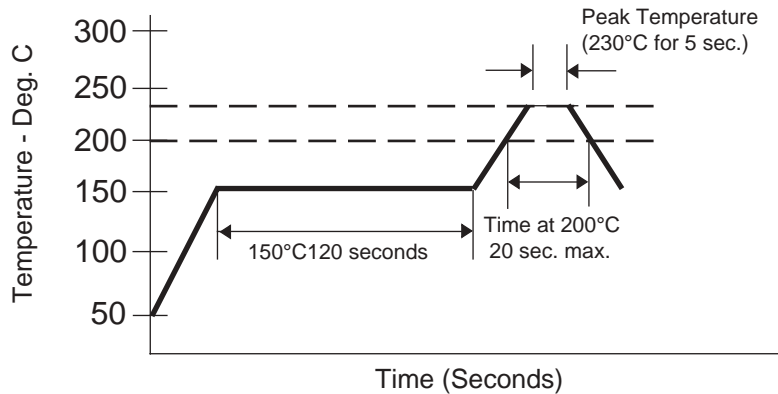


RECOMMENDED LAND PATTERN (mm) WIDE TERMINAL

Case Dia.	d	e	f
12.5WT	3.9	6.0	6.9
16WT	4.7	8.4	9.6
18WT	4.7	8.4	9.6



RECOMMENDED REFLOW SOLDERING PROFILE



1. Polarity: All of our V-chip aluminum electrolytic capacitors have polarity. The cathode is identified by black band on top of can. NACEN and NACWN series are non-polar and can be used where circuit polarity is reversible or unknown.
2. Cleaning:
 - a) Freon TE, TES, TP-35; 2 minutes maximum at 40°C.
 - b) CFC substitute solvents; 2 minutes maximum at 60°C.
 - c) Post cleaning water wash (3-5 minutes) is recommended.
3. Soldering: only REFLOW soldering is applicable. The maximum recommended reflow soldering profile is shown above.

Review & Compare Reflow Soldering Heat Limits
V-chip SMT Aluminum Electrolytic Capacitors
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