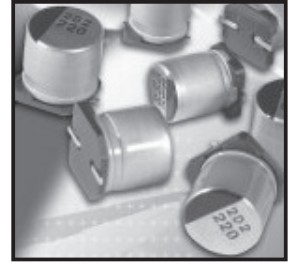


# Surface Mount Aluminum Electrolytic Capacitors NACC Series

## FEATURES

- CYLINDRICAL V-CHIP CONSTRUCTION FOR SURFACE MOUNTING
- HIGH TEMPERATURE, EXTEND LIFE (5000 HOURS @ 105°C)
- 4X6.1mm ~ 10X10.5mm CASE SIZES
- DESIGNED FOR REFLOW SOLDERING

**RoHS  
Compliant**  
includes all homogeneous materials



\*See Part Number System for Details

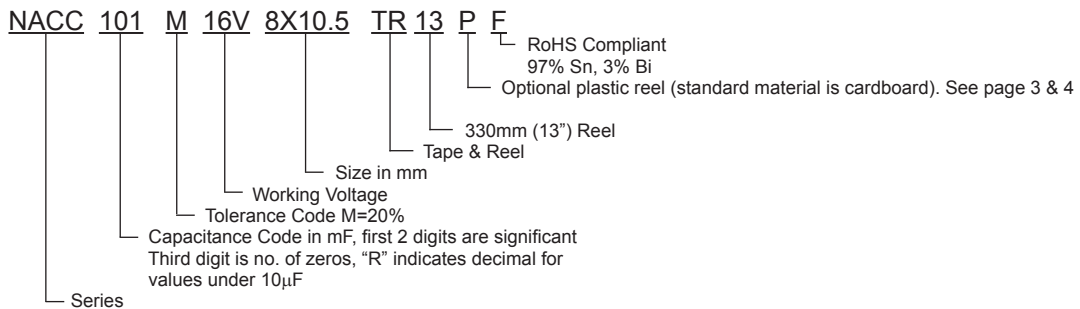
## CHARACTERISTICS

Rated Voltage Range	6.3 ~ 50Vdc						
Rate Capacitance Range	1.0 ~ 1,000µF						
Operating Temp. Range	-40°C ~ +105°C						
Capacitance Tolerance	±20% (M)						
Max. Leakage Current After 2 Minutes @ 20°C	0.01CV or 3µA whichever is greater						
Tan δ @120Hz/20°C	W.V. (Vdc)	6.3	10	16	25	35	50
	S.V.(Vdc)	8	13	20	32	44	63
	Tan δ	0.3*	0.26	0.20	0.16	0.14	0.12
		* 1,000µF is 0.5					
Load Life Test @ 105°C 4mm ~ 6mm Dia. 3,000hrs 8mm ~ 10mm Dia. 5,000hrs	Capacitance Change	Within ± 30% of initial measured value					
	Tan δ	Less than 300% of specified max. value					
	Leakage Current	Less than specified max. value					

## STANDARD PRODUCTS AND CASE SIZE TABLE D x L (mm)

Cap (µF)	Code	Working Voltage (Vdc)						
		6.3	10	16	25	35	50	
1.0	1R0	-	-	-	-	-	-	4X6.1
2.2	2R2	-	-	-	-	-	-	4X6.1
3.3	3R3	-	-	-	-	-	-	4X6.1
4.7	4R7	-	-	-	-	-	-	4X6.1 5X6.1
10	100	-	-	4X6.1	-	-	-	5X6.1 6.3X6.1
22	220	4X6.1	-	5X6.1	-	-	-	6.3X6.1 6.3X8
33	330	-	5X6.1	-	6.3X6.1	6.3X8	-	8X10.5
47	470	5X6.1	-	6.3X6.1	6.3X8	-	-	8X10.5
100	101	6.3X6.1	-	6.3X8	8X10.5	-	-	10X10.5
220	221	6.3X8	8X10.5	-	-	-	10X10.5	-
330	331	8X10.5	-	-	10X10.5	-	-	-
470	471	-	-	10X10.5	-	-	-	-
1000	102	10X10.5	-	-	-	-	-	-

## PART NUMBER SYSTEM



## PRECAUTIONS

Please review the notes on correct use, safety and precautions found at <https://www.niccomp.com/resource/files/aluminum/AlumApplInfoCautions.pdf>  
 If in doubt or uncertainty, please review your specific application - process details with NIC's technical support personnel: [tpmg@niccomp.com](mailto:tpmg@niccomp.com)

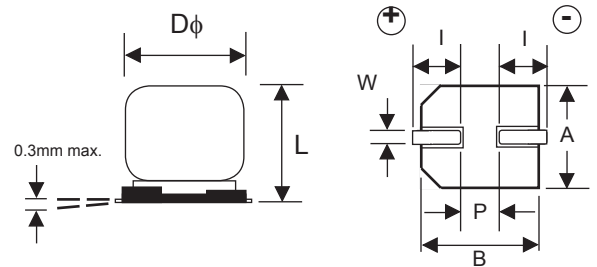


# Surface Mount Aluminum Electrolytic Capacitors NACC Series

NIC Part Number	Cap. (μF)	W.V. (Vdc)	Dissipation Factor (Tan δ)	Max. Ripple Current (mA) +105°C/120Hz	Maximum ESR (Ω) +20°C/120Hz	Load Life Hours @ +105°C
NACC220M6.3V4X6.1TR13F	22	6.3	0.30	26	22.6	3,000
NACC470M6.3V5X6.1TR13F	47		0.30	46	10.6	3,000
NACC101M6.3V6.3X6.1TR13F	100		0.30	71	4.98	3,000
NACC221M6.3V6.3X8TR13F	220		0.30	101	2.26	3,000
NACC331M6.3V8X10.5TR13F	330		0.30	230	1.51	5,000
NACC102M6.3V10X10.5TR13F	1000		0.50	313	0.83	5,000
NACC330M10V5X6.1TR13F	33	10	0.26	43	13.1	3,000
NACC221M10V8X10.5TR13F	220		0.26	160	1.96	5,000
NACC100M16V4X6.1TR13F	10	16	0.20	28	33.2	3,000
NACC220M16V5X6.1TR13F	22		0.20	39	15.1	3,000
NACC470M16V6.3X6.1TR13F	47		0.20	70	7.06	3,000
NACC101M16V6.3X8TR13F	100		0.20	81	3.32	3,000
NACC471M16V10X10.5TR13F	470		0.20	340	7.06	5,000
NACC330M25V6.3X6.1TR13F	33	25	0.16	65	8.04	3,000
NACC470M25V6.3X8TR13F	47		0.16	65	5.65	3,000
NACC101M25V8X10.5TR13F	100		0.16	130	2.66	5,000
NACC331M25V10X10.5TR13F	330		0.16	238	8.04	5,000
NACC47M35V4X6.1TR13F	4.7	35	0.14	15	49.4	3,000
NACC100M35V5X6.1TR13F	10		0.14	28	23.2	3,000
NACC220M35V6.3X6.1TR13F	22		0.14	55	10.6	3,000
NACC330M35V6.3X8TR13F	33		0.14	57	7.04	3,000
NACC221M35V10X10.5TR13F	220		0.14	220	1.06	5,000
NACC1R0M50V4X6.1TR13F	1.0	50	0.12	10	199	3,000
NACC2R2M50V4X6.1TR13F	2.2		0.12	16	90.4	3,000
NACC3R3M50V4X6.1TR13F	3.3		0.12	16	60.3	3,000
NACC4R7M50V5X6.1TR13F	4.7		0.12	23	42.3	3,000
NACC100M50V6.3X6.1TR13F	10		0.12	35	19.9	3,000
NACC220M50V6.3X8TR13F	22		0.12	49	9.04	3,000
NACC330M50V8X10.5TR13F	33		0.12	91	6.03	5,000
NACC470M50V8X10.5TR13F	47		0.12	100	4.24	5,000
NACC101M50V10X10.5TR13F	100		0.12	160	1.99	5,000

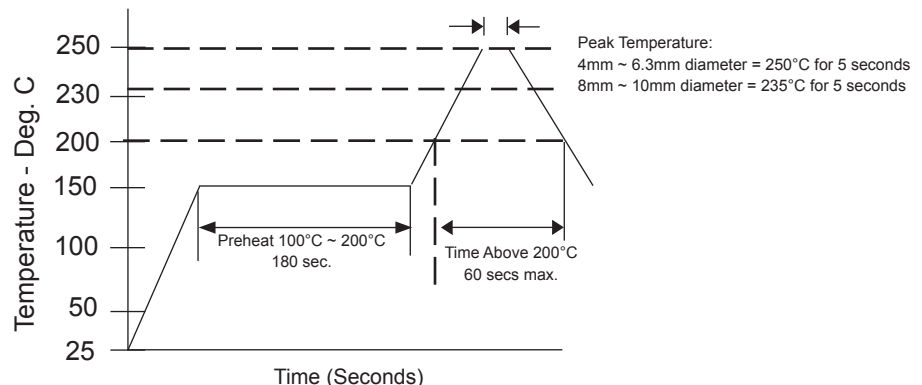
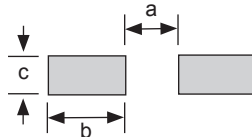
## DIMENSIONS D x L (mm)

Case Size	φD	L max.	A ± 0.2	B ± 0.2	I ± 0.2	W	P ± 0.2
4x6.1	4.0	6.1	4.3	4.3	1.8	0.5 ~ 0.8	1.0
5x6.1	5.0	6.1	5.3	5.3	2.2	0.5 ~ 0.8	1.5
6.3x6.1	6.3	6.1	6.6	6.6	2.6	0.5 ~ 0.8	1.8
6.3x8	6.3	8.0	6.6	6.6	2.6	0.5 ~ 0.8	1.8
8x10.5	8.0	10.5	8.3	8.3	3.4	0.7 ~ 1.1	3.1
10x10.5	10	10.5	10.3	10.3	3.5	0.7 ~ 1.4	4.6



## RECOMMENDED LAND PATTERN DIMENSIONS (mm)

Case Size	a	b	c
4x6.1	1.0	2.5	1.6
5x6.1	1.5	2.8	1.6
6.3x6.1	1.8	3.2	1.6
6.3x8			
8x10.5	3.1	4.0	2.0
10x10.5	4.6	4.1	2.0



# Surface Mount Aluminum Electrolytic Capacitors NACC Series

## CARRIER TAPE

Case Size	A ±0.2	B ±0.2	C ±0.3	D ±0.1	P ±0.1	T ±0.2
4x6.1	4.7	4.7	12.0	5.5	8.0	6.2
5x6.1	5.7	5.7	12.0	5.5	12.0	6.4
6.3x6.1	7.0	7.0	16.0	7.5	12.0	6.4
6.3x8	7.0	7.0	16.0	7.5	12.0	8.4
8x10.5	8.7	8.7	24.0	11.5	16.0	11.0
10x10.5	10.7	10.7	24.0	11.5	16.0	11.0

## TR13 330mm (13") CARDBOARD REEL

(See page 4 for plastic reel dimensions)

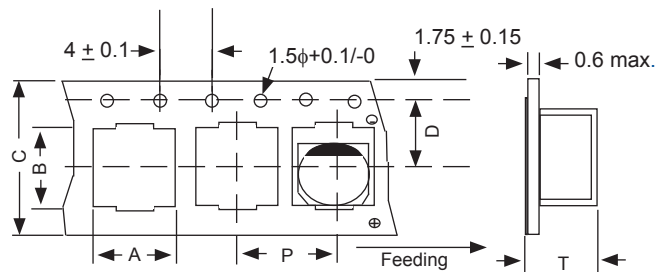
Case Size	W ±1	Quantity Per Reel
		13" Reel
4x6.1	14.0	1,200 pcs
5x6.1	14.0	800 pcs
6.3x6.1	18.0	800 pcs
6.3x8	18.0	500 pcs
8x10.5	26.0*	300 pcs
10x10.5	26.0*	300 pcs

\*W+3/-1

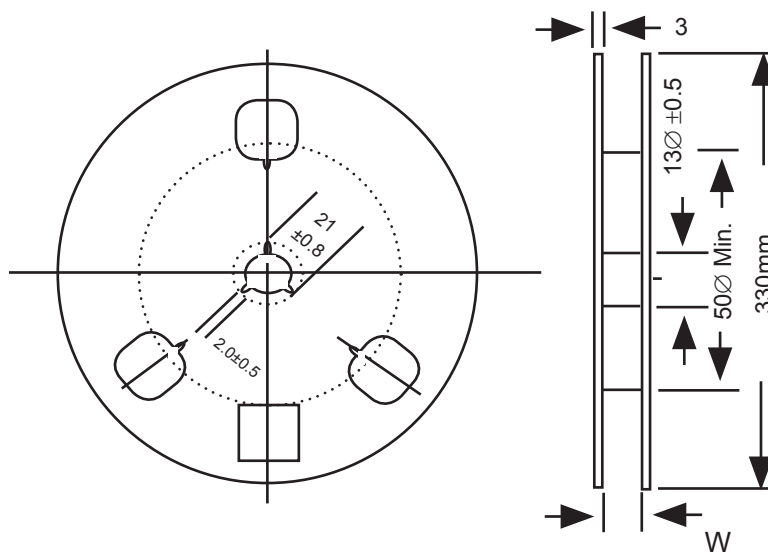
## TAPING SPECIFICATIONS (mm)

- Both Leader and Trailer tape: Minimum 40mm (1.57") empty carrier tape pockets.
- Leader tape: Approximately 20cm of cover tape at leader.
- Connection: Maximum 3 connections (slices) per reel.

## CARRIER

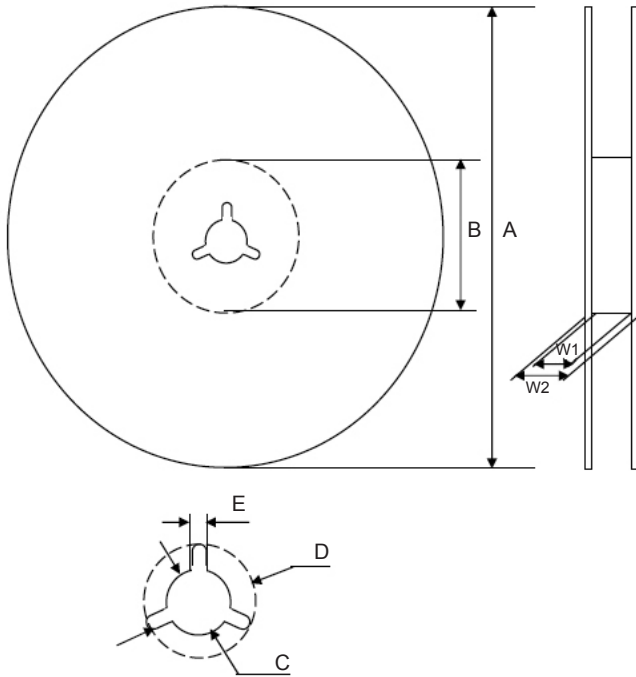


## STANDARD REEL (CARDBOARD)



# Surface Mount Aluminum Electrolytic Capacitors NACC Series

Optional V-Chip 13" (330mm) Plastic Reels (TR13PF suffix)



Dimensions (mm)

Case Size	Tape Width	W1	W2
4x6.1, 5x6.1	12.0	12.4 ~ 14.4	15.5 ~ 20.0
6.3x6.1, 6.3x8	16.0	16.4 ~ 18.4	19.5 ~ 24.0
8x10.5, 10x10.5	24.0	24.4 ~ 26.4	27.5 ~ 32.0

Case Size	Tape Width	A	B	C	D	E
4x6.1, 5x6.1	12.0	$\phi 330$ $\pm 2.0$	$\phi 50 \sim 105$	$\phi 13$ $\pm 0.5$	$\phi 21$ $\pm 1.0$	2.0 $\pm 0.5$
6.3x6.1, 6.3x8	16.0					
8x10.5, 10x10.5	24.0					

Color
Black or Blue

Case Size	Quantity Per Reel
	13" (330mm) Reel
4x6.1	1,200 pcs
5x6.1	800 pcs
6.3x6.1	800 pcs
6.3x8	500 pcs
8x10.5	300 pcs
10x10.5	300 pcs

