

# Surface Mount Aluminum Electrolytic Capacitors NAZU Series

## FEATURES

- CYLINDRICAL V-CHIP CONSTRUCTION FOR SURFACE MOUNTING
  - LOW IMPEDANCE AT 100KHZ
  - EXTENDED LOAD LIFE (3,000 @ +105°C)
  - DESIGNED FOR 260°C REFLOW SOLDERING
  - MEETS THE REQUIREMENTS OF AEC-Q200\*
- \*Contact NIC for supporting test data

SAC Alloy Compatible  
230°C ~ 260°C

**RoHS  
Compliant**  
includes all homogeneous materials



\*See Part Number System for Details

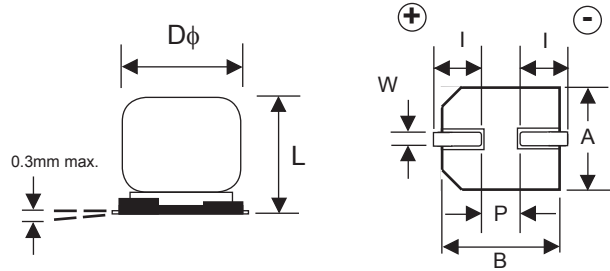
## CHARACTERISTICS

Rated Voltage Rating	6.3 ~ 50Vdc						
Rated Capacitance Range	10 ~ 330μF						
Operating Temp. Range	-40 ~ +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)	8.0	13	20	32	44	63
	Tan δ	0.28	0.24	0.22	0.16	0.13	0.12
Low Temperature Stability Impedance Ratio @ 120Hz	W.V. (Vdc)	6.3	10	16	25	35	50
	Z-25°C/Z+20°C	4	3	2	2	2	2
	Z-40°C/Z+20°C	10	7	5	3	3	3
Load Life Test @ 105°C at Rated Working Voltage 3,000 hrs	Capacitance Change	Within ±30% of initial measured value					
	Tan δ	Less than ±300% of the specified maximum value					
	Leakage Current	Less than the specified maximum value					

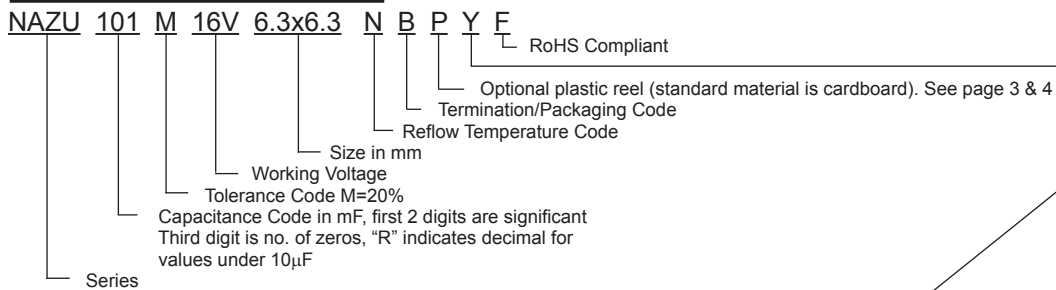
**LOW ESR COMPONENT**  
LIQUID ELECTROLYTE  
For Performance Data see [www.LowESR.com](http://www.LowESR.com)

## STANDARD VALUES AND CASE SIZES (mm)

Cap (μF)	Code	Working Voltage (Vdc)					
		6.3	10	16	25	35	50
10	100	-	-	-	-	5x6.3	6.3x6.3
22	220	-	-	5x6.3	5x6.3	6.3x6.3	6.3x6.3
33	330	-	5x6.3	-	6.3x6.3	-	6.3x8
47	470	5x6.3	5x6.3	6.3x6.3	6.3x6.3	6.3x8	-
100	101	6.3x6.3	6.3x6.3	6.3x6.3	6.3x8	-	-
150	151	-	6.3x6.3	6.3x8	-	-	-
220	221	6.3x8	-	6.3x8	-	-	-
330	331	6.3x8	-	-	-	-	-



## PART NUMBER SYSTEM



Optional: Suitable for automotive equipment, sourced to special production and inspection at TS-16949 certified production site

## COMPONENT DIMENSIONS (mm)

Case Size	φD±0.5	L max.	A±0.2	B±0.2	I±0.3	W	P±0.3
5x6.3	5.0	6.3	5.3	5.3	2.2	0.5~0.8	1.4
6.3x6.3	6.3	6.3	6.6	6.6	2.5	0.5~0.8	2.2
6.3x8	6.3	8.0	6.6	6.6	2.5	0.5~0.8	2.2

## PEAK REFLOW TEMPERATURE CODES

Code	Peak Reflow Temperature
N	260°C

## TERMINATION FINISH & PACKAGING OPTIONS CODES

Code	Finish & Reel Size
B	Sn-Bi Finish & 13" Reel
LB	Sn-Bi Finish & 15" Reel
S	100% Sn Finish & 13" Reel
LS	100% Sn Finish & 15" Reel

## PRECAUTIONS

Please review the notes on correct use, safety and precautions found at <https://www.nicomp.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@nicomp.com](mailto:tpmg@nicomp.com)



# Surface Mount Aluminum Electrolytic Capacitors NAZU Series

## STANDARD VALUES, CASE SIZES AND SPECIFICATIONS

NIC Part Number	Cap. (μF)	W.V. (Vdc)	Dissipation Factor (Tan δ)	Max. Impedance (Ω) +20°C, 100KHz	Max. Ripple Current (mA) +105°C, 100KHz	Load Life Hours @ +105°C
NAZU470M6.3V5X6.3NBF	47	6.3	0.28	1.30	95	3,000
NAZU101M6.3V6.3X6.3NBF	100		0.28	0.70	140	3,000
NAZU221M6.3V6.3X8NBF	220		0.28	0.60	230	3,000
NAZU331M6.3V6.3X8NBF	330		0.28	0.60	230	3,000
NAZU330M10V5X6.3NBF	33	10	0.24	1.30	95	3,000
NAZU470M10V5X6.3NBF	47		0.24	1.30	95	3,000
NAZU101M10V6.3X6.3NBF	100		0.24	0.70	140	3,000
NAZU151M10V6.3X6.3NBF	150		0.24	0.70	140	3,000
NAZU220M16V5X6.3NBF	22	16	0.22	1.30	95	3,000
NAZU470M16V6.3X6.3NBF	47		0.22	0.70	140	3,000
NAZU101M16V6.3X6.3NBF	100		0.22	0.70	140	3,000
NAZU151M16V6.3X8NBF	150		0.22	0.60	230	3,000
NAZU221M16V6.3X8NBF	220	25	0.22	0.60	230	3,000
NAZU220M25V5X6.3NBF	22		0.16	1.30	95	3,000
NAZU330M25V6.3X6.3NBF	33		0.16	0.70	140	3,000
NAZU470M25V6.3X6.3NBF	47		0.16	0.70	140	3,000
NAZU101M25V6.3X8NBF	100	35	0.16	0.60	230	3,000
NAZU100M35V5X6.3NBF	10		0.13	1.30	95	3,000
NAZU220M35V6.3X6.3NBF	22		0.13	0.70	140	3,000
NAZU470M35V6.3X8NBF	47		0.13	0.60	230	3,000
NAZU100M50V6.3X6.3NBF	10	50	0.12	2.00	70	3,000
NAZU220M50V6.3X6.3NBF	22		0.12	2.00	70	3,000
NAZU330M50V6.3X8NBF	33		0.12	1.35	100	3,000

For Automotive Equipment, see part number system

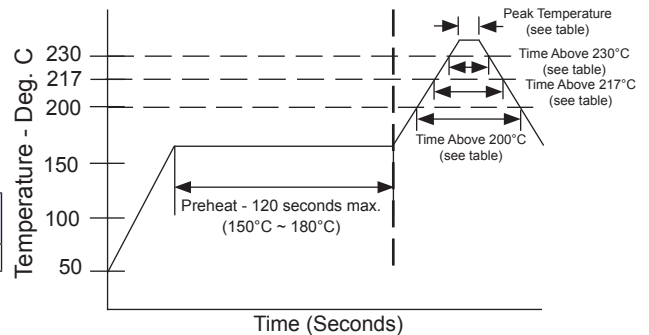
## RIPPLE CURRENT FREQUENCY CORRECTION FACTORS

Frequency	100Hz	1KHz	10KHz	100KHz
C ≤ 22μF	0.50	0.80	0.90	1.00
22<C≤150μF	0.65	0.85	0.92	1.00
150<C	0.70	0.85	0.95	1.00

## PEAK REFLOW TEMPERATURE AND DURATION

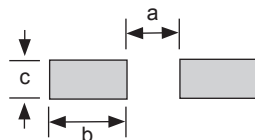
Diameter	Time above +200°C	Time above +230°C	Time above +217°C	Peak Temperature 5 seconds
5 ~ 6.3mm φ	80 sec. max.	40 sec. max.	70 sec. max.	260°C

Capacitors can withstand two times reflow at the above conditions. Second reflow shall be at least one hour after natural cool to room temperature.



## RECOMMENDED LAND PATTERN DIMENSIONS (mm)

Case Size	a	b	c
5x6.3	1.4	3.0	1.8
6x3x6.3 6.3x8	1.8	3.6	1.8



Review & Compare Reflow Soldering Heat Limits  
V-chip SMT Aluminum Electrolytic Capacitors  
[www.niccomp.com/RSL](http://www.niccomp.com/RSL)



# Surface Mount Aluminum Electrolytic Capacitors NAZU Series

## CARRIER TAPE

Case Size	A ±0.2	B ±0.2	C ±0.3	D ±0.1	P ±0.1	T ±0.2
5 x 6.3	5.7	5.7	12.0	5.5	12.0	6.5
6.3 x 6.3	7.0	7.0	16.0	7.5	12.0	6.5
6.3 x 8	7.0	7.0	16.0	7.5	12.0	8.2

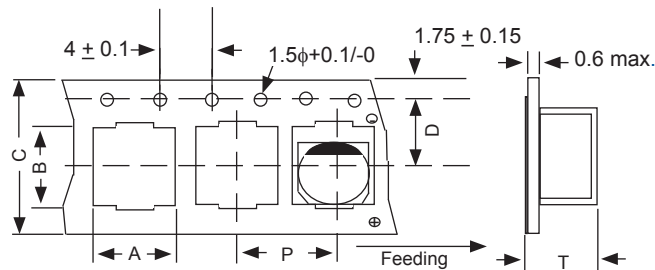
**B suffix 330mm (13") CARDBOARD REEL**  
**LB suffix 380mm (15") CARDBOARD REEL**  
 (See page 4 for plastic reel dimensions)

Case Size	W ±1	Quantity Per Reel	
		13" Reel	15" Reel
5 x 6.3	14.0	1,200 pcs	1,000 pcs
6.3 x 6.3	18.0	800 pcs	1,000 pcs
6.3 x 8	18.0	500 pcs	900 pcs

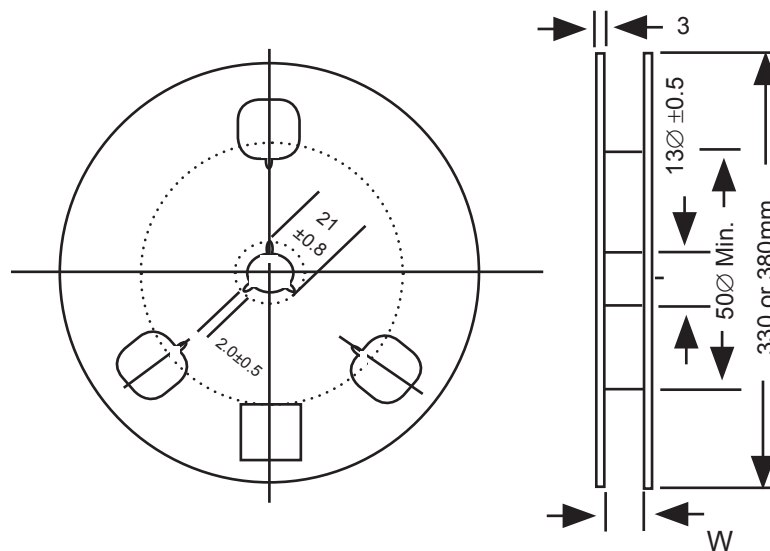
## TAPING SPECIFICATIONS (mm)

- 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

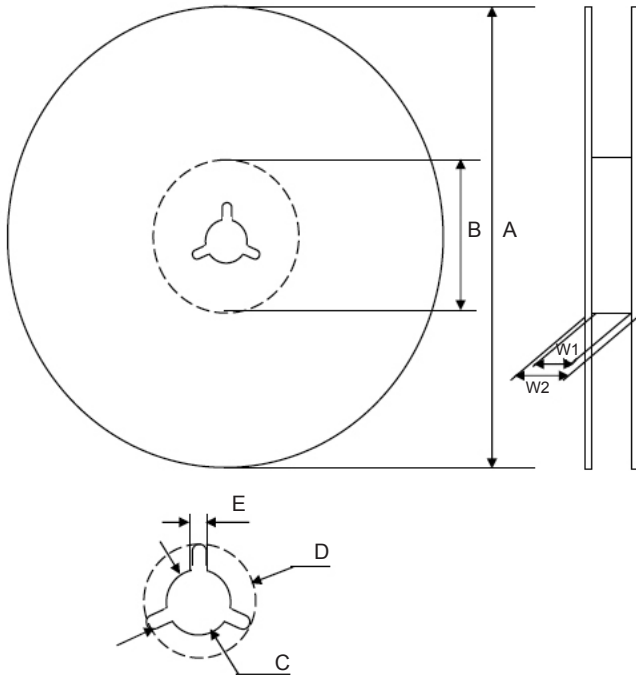


## STANDARD REEL (CARDBOARD)



# Surface Mount Aluminum Electrolytic Capacitors NAZU Series

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



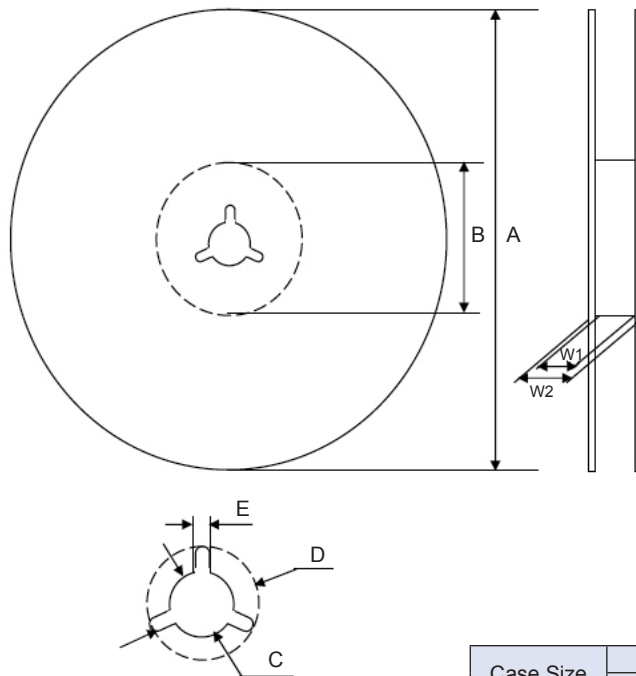
### Dimensions (mm)

Case Size	Tape Width	W1	W2
4x5.5, 4x6.3	12.0	12.4 ~ 14.4	15.5 ~ 20.0
6.3x6.3, 6.3x8	16.0	16.4 ~ 18.4	19.5 ~ 24.0

Case Size	Tape Width	A	B	C	D	E
4x5.5, 4x6.3	12.0	$\phi 330$	$\phi 50 \sim 105$	$\phi 13$	$\phi 21$	2.0
6.3x6.3, 6.3x8	16.0	$\pm 2.0$		$\pm 0.5$	$\pm 1.0$	$\pm 0.5$

Color
Black or Blue

## Optional V-Chip 15" (380mm) Plastic Reels (LBP suffix)



### Dimensions (mm)

Case Size	Tape Width	W1	W2
4x5.5, 4x6.3	12.0	12.5 ~ 14.0	15.5 ~ 20.0
6.3x6.3, 6.3x8	16.0	16.5 ~ 18.0	19.5 ~ 24.0

Case Size	Tape Width	A	B	C	D	E
4x5.5, 4x6.3	12.0	$\phi 380$	$\phi 80 \sim 105$	$\phi 13$	$\phi 21$	2.0
6.3x6.3, 6.3x8	16.0	$\pm 2$		$\pm 0.5$	$\pm 1.0$	$\pm 0.5$

Color
Black or Blue

Case Size	Quantity Per Reel	
	13" Reel	15" Reel
5 x 6.3	1,200 pcs	1,000 pcs
6.3 x 6.3	800 pcs	1,000 pcs
6.3 x 8	500 pcs	900 pcs

