

NAZU Series

Surface Mount Aluminum Electrolytic Capacitors



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

LOW ESR COMPONENT
LIQUID ELECTROLYTE
For Performance Data
see www.LowESR.com

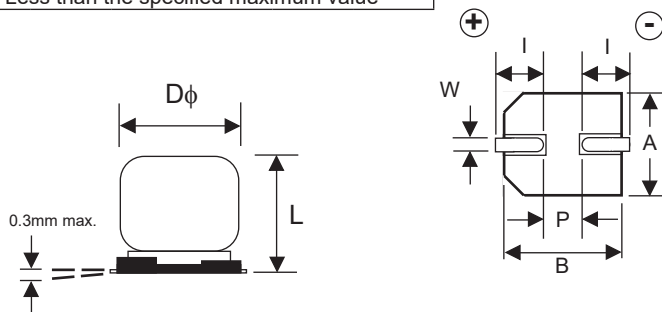


CHARACTERISTICS

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					

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

NAZU 101 M 16V 6.3x6.3 N LB Y F

RoHS Compliant
Termination/Packaging Code
Reflow Temperature Code
Size in mm
Working Voltage
Tolerance Code M=20%
Capacitance Code in mF, first 2 digits are significant
Third digit is no. of zeros, "R" indicates decimal for values under 10μF
Series

Optional: Suitable for automotive equipment, sourced to special production and inspection at IATF-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
LB	Sn-Bi Finish & 15" Reel
LS	100% Sn Finish & 15" Reel

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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
NAZU470M6.3V5X6.3NLBF	47	6.3	0.28	1.30	95	3,000
NAZU101M6.3V6.3X6.3NLBF	100		0.28	0.70	140	3,000
NAZU221M6.3V6.3X8NLBF	220		0.28	0.60	230	3,000
NAZU331M6.3V6.3X8NLBF	330		0.28	0.60	230	3,000
NAZU330M10V5X6.3NLBF	33	10	0.24	1.30	95	3,000
NAZU470M10V5X6.3NLBF	47		0.24	1.30	95	3,000
NAZU101M10V6.3X6.3NLBF	100		0.24	0.70	140	3,000
NAZU151M10V6.3X6.3NLBF	150		0.24	0.70	140	3,000
NAZU220M16V5X6.3NLBF	22	16	0.22	1.30	95	3,000
NAZU470M16V6.3X6.3NLBF	47		0.22	0.70	140	3,000
NAZU101M16V6.3X6.3NLBF	100		0.22	0.70	140	3,000
NAZU151M16V6.3X8NLBF	150		0.22	0.60	230	3,000
NAZU221M16V6.3X8NLBF	220	25	0.22	0.60	230	3,000
NAZU220M25V5X6.3NLBF	22		0.16	1.30	95	3,000
NAZU330M25V6.3X6.3NLBF	33		0.16	0.70	140	3,000
NAZU470M25V6.3X6.3NLBF	47		0.16	0.70	140	3,000
NAZU101M25V6.3X8NLBF	100	35	0.16	0.60	230	3,000
NAZU100M35V5X6.3NLBF	10		0.13	1.30	95	3,000
NAZU220M35V6.3X6.3NLBF	22		0.13	0.70	140	3,000
NAZU470M35V6.3X8NLBF	47		0.13	0.60	230	3,000
NAZU100M50V6.3X6.3NLBF	10	50	0.12	2.00	70	3,000
NAZU220M50V6.3X6.3NLBF	22		0.12	2.00	70	3,000
NAZU330M50V6.3X8NLBF	33		0.12	1.35	100	3,000

For Automotive Equipment, see part number system

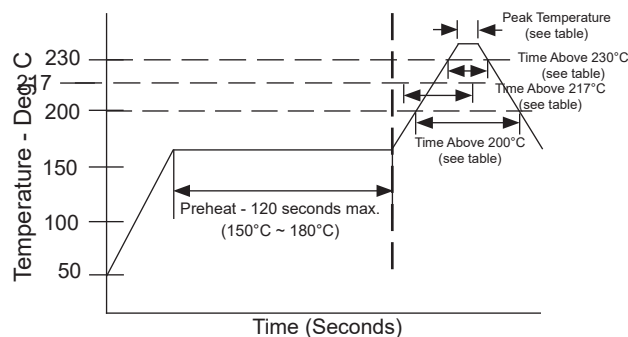
RIPPLE CURRENT FREQUENCY CORRECTION FACTORS

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

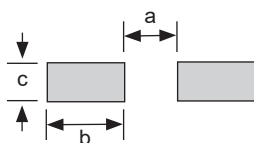
Diameter	Time above +200°C	Time above +230°C	Time above +217°C	Peak Temperature 5 seconds
5 ~ 6.3mm φ	80 sec. max.	40 sec. max.	70 sec. max.	260°C

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



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

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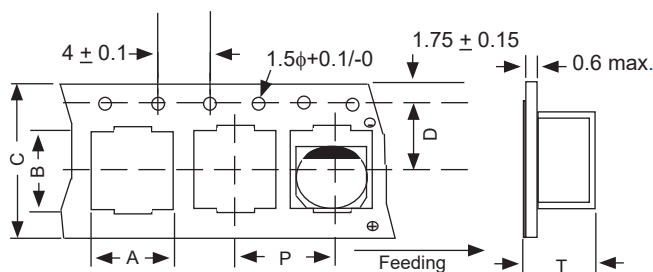
CARRIER TAPE

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

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.

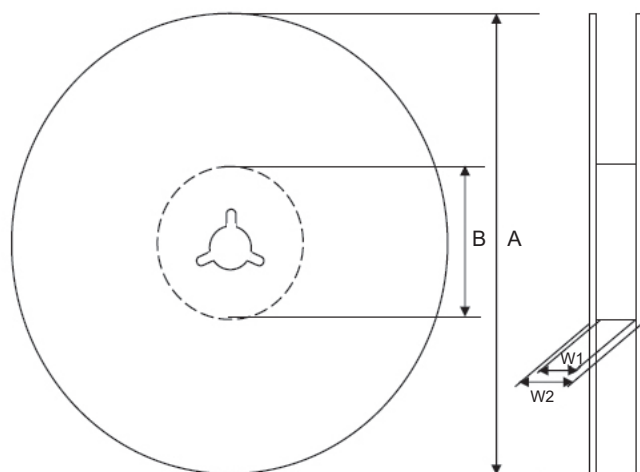
CARRIER



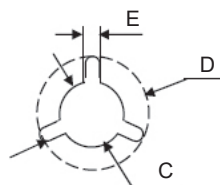
V-Chip 15" (380mm) Reels (LB suffix)

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	φ380	φ80~105	φ13 ±0.5	φ21 ±1.0	2.0 ±0.5
6.3x6.3, 6.3x8	16.0	±2				



Case Size	Quantity per Reel
	15" Reel
5 x 6.3	1,000 pcs
6.3 x 6.3	1,000 pcs
6.3 x 8	900 pcs