

Issue Date: September 14, 2023

Subject: NASE End of Life Notification (EOL)

Notification Type: End of Life (EOL)

Effected NIC Products: NASE Series

Effective Date: September 14, 2023

Last Order Date: March 29, 2024

Last Ship Date: July 28, 2024

Description: Due to no market demand NIC has discontinued production of the NASE series. Please refer to table below for full list of effected NIC part numbers and alternatives. For a complete list of part numbers in Excel: [Click here](#)

EOL Part Number	Cap.	Voltage	Case Size	Possible Alternative	Comments
NASE220M6.3V4X5.5NLBF	22	6.3	4X5.5	NACX220M6.3V4X5.5TR15F	
NASE470M6.3V5X5.5NLBF	47	6.3	5X5.5	NACX470M6.3V5X5.5TR13F	Smaller reel
NASE101M6.3V6.3X5.5NLBF	100	6.3	6.3X5.5	NACX101M6.3V6.3X5.5TR13F	Smaller reel
NASE331M6.3V6.3X8NLBF	330	6.3	6.3X8	NACZ331M6.3V6.3X8TR15F	
NASE471M6.3V8X10.5LLBF	470	6.3	8X10.5	NACZ471M6.3V8X10.5TR15F	
NASE102M6.3V10X10.5LLBF	1000	6.3	10X10.5	NAZV102M6.3V10X10.5LLBF	
NASE330M10V5X5.5NLBF	33	10	5X5.5	NACX330M10V5X5.5TR13F	Smaller reel
NASE101M10V6.3X5.5NLBF	100	10	6.3X5.5	NACX101M10V6.3X5.5TR13F	Smaller reel
NASE221M10V6.3X8NLBF	220	10	6.3X8	NAZT221M10V6.3X8NLBF	
NASE331M10V8X10.5LLBF	330	10	8X10.5	NACZ331M10V8X10.5TR15F	
NASE471M10V8X10.5LLBF	470	10	8X10.5	NACZ471M10V8X10.5TR15F	
NASE100M16V4X5.5NLBF	10	16	4X5.5	NACX100M16V4X5.5TR15F	
NASE220M16V5X5.5NLBF	22	16	5X5.5	NACX220M16V5X5.5TR13F	Smaller reel
NASE470M16V5X5.5NLBF	47	16	5X5.5	NACX470M16V5X5.5TR13F	Smaller reel
NASE101M16V6.3X5.5NLBF	100	16	6.3X5.5	NACX101M16V6.3X5.5TR13F	Smaller reel
NASE221M16V8X10.5LLBF	220	16	8X10.5	NACZ221M25V8X10.5TR15F	Higher voltage
NASE331M16V8X10.5LLBF	330	16	8X10.5	NACX331M16V8X10.5TR15F	
NASE471M16V8X10.5LLBF	470	16	8X10.5	NACZ471M16V8X10.5TR15F	
NASE471M16V10X10.5LLBF	470	16	10X10.5	NAZV471M16V10X10.5LLBF	
NASE4R7M25V4X5.5NLBF	4.7	25	4X5.5	NACX4R7M25V4X5.5TR15F	
NASE100M25V4X5.5NLBF	10	25	4X5.5	NACX100M25V4X5.5TR15F	
NASE330M25V6.3X5.5NLBF	33	25	6.3X5.5	NACX330M25V6.3X5.5TR13F	Smaller reel
NASE101M25V6.3X8NLBF	100	25	6.3X8	NACZ101M25V6.3X8TR15F	
NASE221M25V8X10.5LLBF	220	25	8X10.5	NACZ221M25V8X10.5TR15F	
NASE4R7M35V4X5.5NLBF	4.7	35	4X5.5	NACX4R7M35V4X5.5TR15F	
NASE100M35V5X5.5NLBF	10	35	5X5.5	NACX100M35V5X5.5TR13F	Smaller reel
NASE220M35V6.3X5.5NLBF	22	35	6.3X5.5	NACX220M35V6.3X5.5TR13F	Smaller reel

EOL Part Number	Cap.	Voltage	Case Size	Possible Alternative	Comments
NASE330M35V6.3X5.5NLBF	33	35	6.3X5.5	NAZJ330M35V6.3X6.1NLBF	Higher profile
NASE470M35V6.3X8NLBF	47	35	6.3X8	NATK470M35V6.3X8NBIF	
NASE101M35V10X10.5LLBF	100	35	10X10.5	NAZV101M50V10X10.5LLBF	Higher voltage
NASE221M35V8X10.5LLBF	220	35	8X10.5	NACZ221M35V8X10.5TR15F	
NASE1R0M50V4X5.5NLBF	1.0	50	4X5.5	NACX1R0M50V4X5.5TR15F	
NASE2R2M50V4X5.5NLBF	2.2	50	4X5.5	NACX2R2M50V4X5.5TR15F	
NASE3R3M50V4X5.5NLBF	3.3	50	4X5.5	NACX3R3M50V4X5.5TR15F	
NASE4R7M50V5X5.5NLBF	4.7	50	5X5.5	NACX4R7M50V5X5.5TR15F	
NASE100M50V6.3X5.5NLBF	10	50	6.3X5.5	NACX100M50V6.3X5.5TR15F	
NASE220M50V6.3X5.5NLBF	22	50	6.3X5.5	NAWP220M50V6.3X5.5LBF	Lower RCR
NASE330M50V6.3X8NLBF	33	50	6.3X8	NACZ330M50V6.3X8TR15F	
NASE330M50V8X10.5LLBF	33	50	8X10.5	NAZV330M50V8X10.5LLBF	
NASE470M50V10X10.5LLBF	47	50	10X10.5	NATT470M50V10X10.5LLBF	Lower RCR
NASE101M50V8X10.5LLBF	100	50	8X10.5	NAZT101M50V8X10.5NLBF	

Prepared by NIC Components TPMG, tpmg@niccomp.com

FEATURES

- CYLINDRICAL V-CHIP CONSTRUCTION FOR SURFACE MOUNTING
- SUIT FOR HIGH TEMPERATURE REFLOW SOLDERING (UP TO 260°C)
- 2,000 HOUR LOAD LIFE @ +85°C)
- DESIGNED FOR AUTOMATIC MOUNTING AND REFLOW SOLDERING

SAC Alloy Compatible
230°C ~ 260°C



CHARACTERISTICS

Rated Voltage Rating	6.3 ~ 50Vdc	Load Life Test @ 85°C All Case Sizes = 2,000 hours					
Rated Capacitance Range	1.0 ~ 1,000μF						
Operating Temp. Range	-40 ~ +85°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
	4 ~ 5mm diameter & 6.3x5.5mm	0.26	0.22	0.18	0.16	0.13	0.12
	6.3x8mm & 8~10mm diameter	0.35	0.26	0.20	0.16	0.14	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	8	8	4	4	3	3
Load Life Test @ 85°C All Case Sizes = 2,000 hours	Capacitance Change	Within ±25% of initial measured value					
	Tan δ	Less than ±200% 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

STANDARD VALUES AND CASE SIZES (mm)

Cap. (μF)	Code	Working Voltage (Vdc)					
		6.3	10	16	25	35	50
1.0	1R0	-	-	-	-	-	4x5.5
2.2	2R2	-	-	-	-	-	4x5.5
3.3	3R3	-	-	-	-	-	4x5.5
4.7	4R7	-	-	-	4x5.5	4x5.5	5x5.5
10	100	-	-	4x5.5	4x5.5	5x5.5	6.3x5.5
22	220	4x5.5	-	5x5.5	-	6.3x5.5	6.3x5.5
33	330	-	5x5.5	-	6.3x5.5	6.3x5.5	6.3x8 8x10.5
47	470	5x5.5	-	6.3x5.5	-	6.3x8	10x10.5
100	101	6.3x5.5	6.3x5.5	6.3x5.5	6.3x8	10x10.5	8x10.5
220	221	-	6.3x8	8x10.5	8x10.5	8x10.5	-
330	331	6.3x8	8x10.5	8x10.5	-	-	-
470	471	8x10.5	8x10.5	8x10.5	-	-	-
				10x10.5			
1000	102	10x10.5	-	-	-	-	-

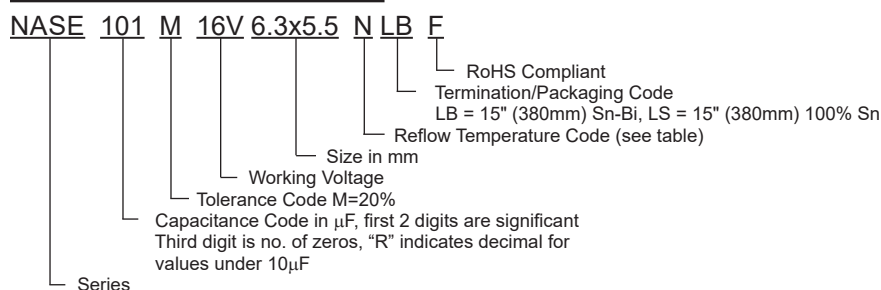
PEAK REFLOW TEMPERATURE CODES

Code	Peak Reflow Temperature
N	260°C
L	250°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

PART NUMBER SYSTEM



NASE Series

Surface Mount Aluminum Electrolytic Capacitors



STANDARD VALUES, CASE SIZES AND SPECIFICATIONS

NIC Part Number	Cap. (μF)	W.V. (Vdc)	Dissipation Factor (Tan δ)	Max. Ripple Current (mA) +85°C/120Hz	Load Life Hours @ +85°C
NASE220M6.3V4X5.5NLBF	22	6.3	0.26	29	2,000
NASE470M6.3V5X5.5NLBF	47		0.26	46	2,000
NASE101M6.3V6.3X5.5NLBF	100		0.26	71	2,000
NASE331M6.3V6.3X8NLBF	330		0.35	190	2,000
NASE471M6.3V8X10.5LLBF	470		0.35	380	2,000
NASE102M6.3V10X10.5LLBF	1000		0.35	700	2,000
NASE330M10V5X5.5NLBF	33	10	0.22	43	2,000
NASE101M10V6.3X5.5NLBF	100		0.22	71	2,000
NASE221M10V6.3X8NLBF	220		0.26	175	2,000
NASE331M10V8X10.5LLBF	330		0.26	330	2,000
NASE471M10V8X10.5LLBF	470		0.26	380	2,000
NASE100M16V4X5.5NLBF	10	16	0.18	25	2,000
NASE220M16V5X5.5NLBF	22		0.18	39	2,000
NASE470M16V5X5.5NLBF	47		0.18	50	2,000
NASE101M16V6.3X5.5NLBF	100		0.18	86	2,000
NASE221M16V8X10.5LLBF	220		0.20	290	2,000
NASE331M16V8X10.5LLBF	330		0.20	330	2,000
NASE471M16V8X10.5LLBF	470		0.20	385	2,000
NASE471M16V10X10.5LLBF	470		0.20	690	2,000
NASE4R7M25V4X5.5NLBF	4.7	25	0.16	18	2,000
NASE100M25V4X5.5NLBF	10		0.16	25	2,000
NASE330M25V6.3X5.5NLBF	33		0.16	54	2,000
NASE101M25V6.3X8NLBF	100		0.16	145	2,000
NASE221M25V8X10.5LLBF	220		0.16	300	2,000
NASE4R7M35V4X5.5NLBF	4.7	35	0.13	18	2,000
NASE100M35V5X5.5NLBF	10		0.13	30	2,000
NASE220M35V6.3X5.5NLBF	22		0.13	48	2,000
NASE330M35V6.3X5.5NLBF	33		0.13	58	2,000
NASE470M35V6.3X8NLBF	47		0.14	105	2,000
NASE101M35V10X10.5LLBF	100		0.14	480	2,000
NASE221M35V8X10.5LLBF	220		0.14	280	2,000
NASE1R0M50V4X5.5NLBF	1.0	50	0.12	8.4	2,000
NASE2R2M50V4X5.5NLBF	2.2		0.12	14	2,000
NASE3R3M50V4X5.5NLBF	3.3		0.12	17	2,000
NASE4R7M50V5X5.5NLBF	4.7		0.12	22	2,000
NASE100M50V6.3X5.5NLBF	10		0.12	35	2,000
NASE220M50V6.3X5.5NLBF	22		0.12	48	2,000
NASE330M50V6.3X8NLBF	33		0.12	95	2,000
NASE330M50V8X10.5LLBF	33		0.12	200	2,000
NASE470M50V10X10.5LLBF	47		0.12	280	2,000
NASE101M50V8X10.5LLBF	100		0.12	320	2,000

PRECAUTIONS

Please review the notes on correct use, safety and precautions found at <https://www.niccomp.com/resource/files/aluminum/AlumAppInfoCautions.pdf>
If in doubt or uncertainty, please review your specific application - process details with info@niccomp.com

Performance Passives By Design

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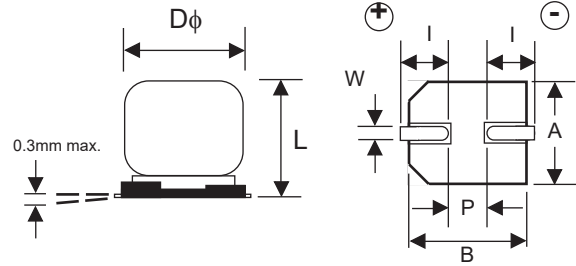
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www.niccomp.com

1st Edition 06-15-2023 Specification subject to change without notice. Please check web site for latest information.

DIMENSIONS (mm) AND REEL QUANTITIES

Case Size	$\phi D \pm 0.5$	L max.	A ± 0.2	B ± 0.2	I ± 0.3	W	P ± 0.3	Qty/Reel
4x5.5	4.0	5.5	4.3	4.3	1.8	0.5~0.8	1.0	1,500
5x5.5	5.0	5.5	5.3	5.3	2.2	0.5~0.8	1.4	1,000
6.3x5.5	6.3	5.5	6.6	6.6	2.7	0.5~0.8	2.2	1,000
6.3x8	6.3	8.0	6.6	6.6	2.7	0.5~0.8	2.2	500
8x10.5	8.0	10.5	8.3	8.3	2.9	0.7~1.1	3.2	300
10x10.5	10.0	10.5	10.3	10.3	3.2	0.7~1.4	4.6	300



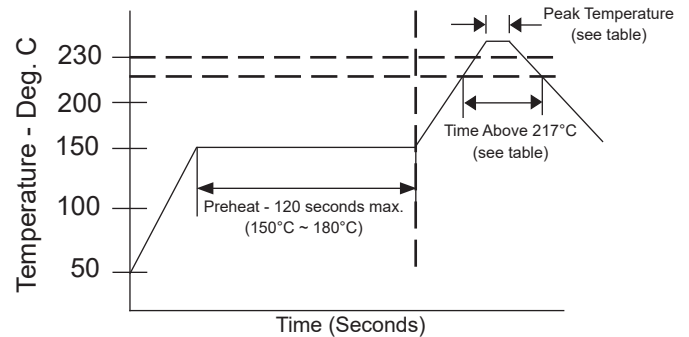
RIPPLE CURRENT FREQUENCY CORRECTION FACTORS

Frequency	50/60Hz	120Hz	500Hz	1KHz	10KHz
1 μ F	0.5	1.00	1.20	1.30	1.50
2.2~4.7 μ F	0.65	1.00	1.20	1.30	1.50
10~47 μ F	0.80	1.00	1.20	1.30	1.50
100~1000 μ F	0.80	1.00	1.10	1.15	1.20

PEAK REFLOW TEMPERATURE AND DURATION

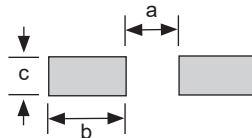
Diameter	Time above 217°C	Peak Temperature 5 seconds
4 ~ 6.3mm ϕ	60 sec. max.	260°C
8 ~ 10mm ϕ	60 sec. max.	250°C

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
4x5.5	1.0	2.6	1.8
5x5.5	1.4	3.0	1.8
6x3x5.5 6.3x8	2.1	3.5	1.8
8x10.5	2.8	4.1	2.1
10x10.5	4.3	4.4	2.2



Review & Compare Reflow Soldering Heat Limits
V-chip SMT Aluminum Electrolytic Capacitors
www.niccomp.com/RSL

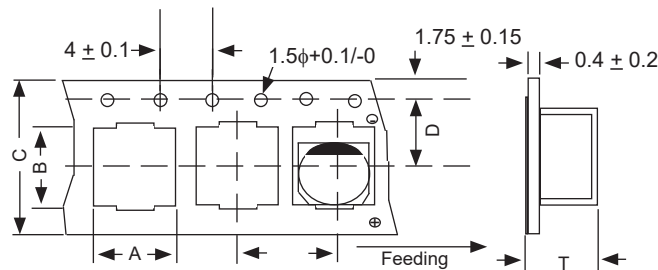
CARRIER TAPE

Case Size	A ±0.5	B ±0.2	C ±0.3	D ±0.1	P ±0.1	T ±0.2
4 x 5.5	4.7	4.7	12.0	5.5	8.0	5.8
5 x 5.5	5.7	5.7	12.0	5.5	12.0	5.8
6.3 x 5.5	7.0	7.0	16.0	7.5	12.0	5.8
6.3 x 8	7.0	7.0	16.0	7.5	12.0	8.3
8 X 10.5	8.7	8.7	24.0	11.5	16.0	11.1
10 x 10.5	10.7	10.7	24.0	11.5	16.0	11.2

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

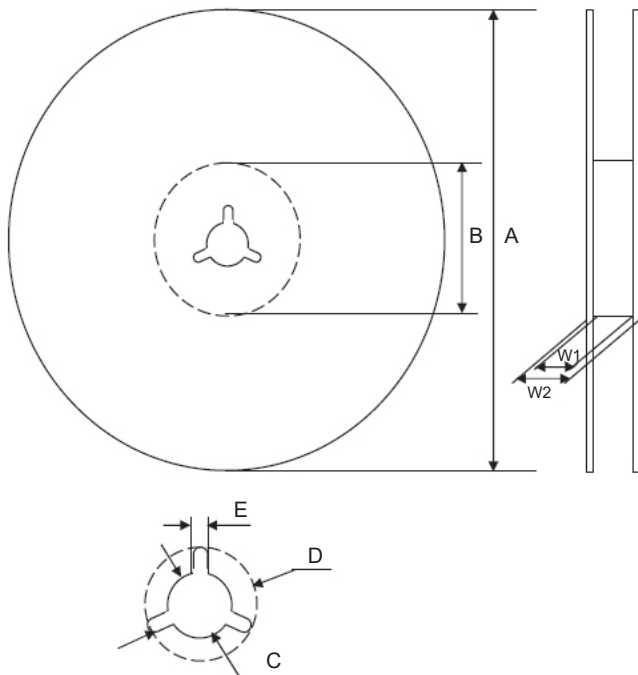


Preferred V-Chip 15" (380mm) Reels (LBF suffix)

Dimensions (mm)

Case Size	Tape Width	W1	W2
4x5.5	12.0	12.5 ~ 14.0	15.5 ~ 20.0
6.3x8	16.0	16.5 ~ 18.0	19.5 ~ 24.0
8x10.5, 10x8	24.0	24.5 ~ 26.0	27.5 ~ 32.0

Case Size	Tape Width	A	B	C	D	E
4x5.5	12.0	φ380 ±2	φ80~105	φ13 ±0.5	φ21 ±1.0	2.0 ±0.5
6.3x8	16.0					
8x10.5, 10x8	24.0					



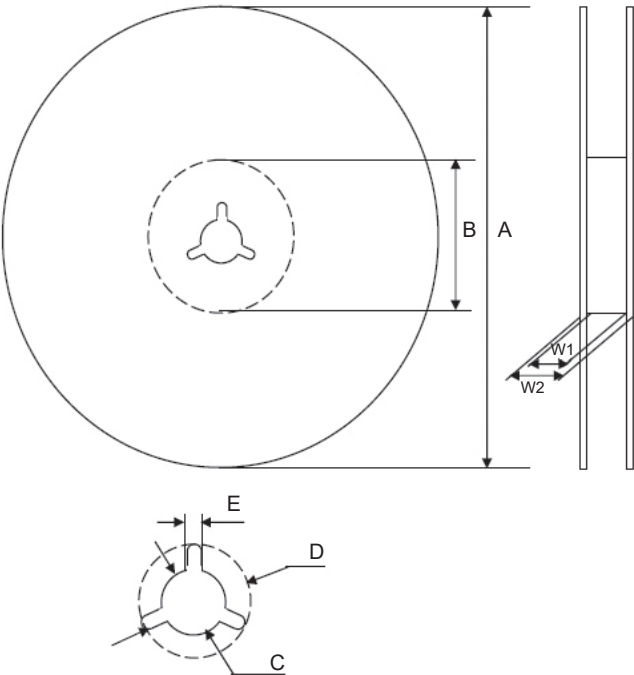


V-Chip 13" (330mm) Reels (BF suffix)

Dimensions (mm)

Case Size	Tape Width	W1	W2
4x5.5, 5x5.5	12.0	12.4 ~ 14.4	15.5 ~ 20.0
6.3x5.5, 6.3x8	16.0	16.4 ~ 18.4	19.5 ~ 24.0
8x10.5, 10x8	24.0	24.4 ~ 26.4	27.5 ~ 32.0

Case Size	Tape Width	A	B	C	D	E
4x5.5, 5x5.5	12.0	$\phi 330$ ± 2.0	$\phi 50 \sim 105$	$\phi 13$ ± 0.5	$\phi 21$ ± 1.0	2.0 ± 0.5
6.3x5.5, 6.3x8	16.0					
8x10.5, 10x8	24.0					



Case Size	Quantity Per Reel	
	13" Reel	15" Reel
4 x 5.5	n/a	2,000 pcs
5 x 5.5	1,000 pcs	1,000 pcs
6.3 x 5.5	1,000 pcs	1,000 pcs
6.3 x 8	n/a	900 pcs
8 X 10.5	n/a	500 pcs
10 x 8	n/a	500 pcs