

# Non-Polar Aluminum Electrolytic Capacitors

NRE-SN Series

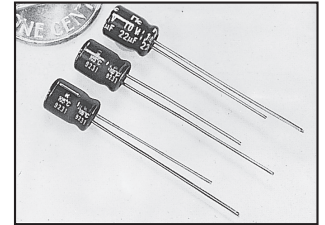
LOW PROFILE, SUB-MINIATURE, RADIAL LEADS,  
NON-POLAR ALUMINUM ELECTROLYTIC

## FEATURES

- BI-POLAR
- 7mm HEIGHT / LOW PROFILE

**RoHS  
Compliant**  
includes all homogeneous materials

\*See Part Number System for Details



## CHARACTERISTICS

Rated Voltage Range	6.3 ~ 50Vdc						
Capacitance Range	1.0 ~ 47 $\mu$ F						
Operating Temperature Range	-40 ~ +85°C						
Capacitance Tolerance	$\pm$ 20%(M)						
Max. Leakage Current After 1 minutes At +20°C	0.05CV or 10 $\mu$ A whichever is greater						
Surge Voltage & Max. Tan $\delta$ @ 120Hz/+20°C	W.V. (Vdc)	6.3	10	16	25	35	50
	S.V. (Vdc)	8	13	20	32	44	63
	Tan $\delta$	0.24	0.20	0.16	0.16	0.14	0.12
Low Temperature Stability (Impedance Ratio @ 120Hz)	Z-25°C/Z+20°C	4	3	2	2	2	2
	Z-40°C/Z+20°C	8	6	4	4	3	3
Load Life Test at Rated W.V. +85°C 1,000 Hours (Polarity Shall Be Reversed Every 250 Hours)	Capacitance Change	Within $\pm$ 25% of initial measured value					
	Tan $\delta$	Less than 200% of specified maximum value					
	Leakage Current	Less than specified maximum value					

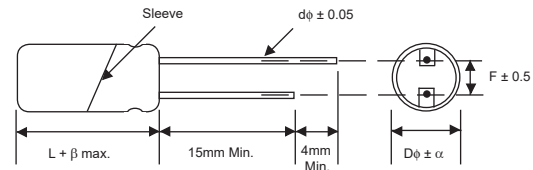
## STANDARD PRODUCTS AND CASE SIZE TABLE D $\phi$ x L (mm)

Cap. ( $\mu$ F)	Code	Working Voltage (Vdc)					
		6.3	10	16	25	35	50
1.0	1R0	-	-	-	-	-	4x7
2.2	2R2	-	-	-	-	4x7	5x7
3.3	3R3	-	-	-	4x7	5x7	5x7
4.7	4R7	-	-	-	4x7	5x7	6.3x7
10	100	-	4x7	4x7	5x7	6.3x7	-
22	220	5x7	5x7	6.3x7	6.3x7	-	-
33	330	5x7	6.3x7	6.3x7	-	-	-
47	470	6.3x7	6.3x7	6.3x7	-	-	-

## LEAD SPACING AND DIAMETER (mm)

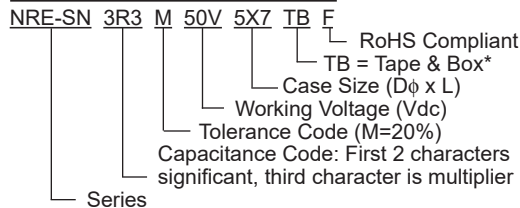
Case Dia. (D $\phi$ )	4	5	6.3
Lead Dia. (d $\phi$ )	0.45	0.45	0.45
Lead Space (F)	1.5	2.0	2.5

## DIMENSIONS (mm)



Drawing is representative of parts as supplied in bulk or straight lead format, please see taping specification for details on taped format packaging.

## PART NUMBER SYSTEM



\*see taping specifications for details

## 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)



NIC COMPONENTS CORP.

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SPECIFICATIONS ARE SUBJECT TO CHANGE

### STANDARD PRODUCT, SPECIFICATIONS AND CASE SIZES D $\phi$ x L (mm)

Part Number	Cap. ( $\mu$ F)	W.V. (Vdc)	Dissipation Factor +20°C/120Hz	Ripple Current Rating (mA) +85°C/120Hz	Max. ESR ( $\Omega$ ) +20°C/120Hz	Load Life Hours @ +85°C
NRE-SN330M6.3V5x7F	33	6.3	0.24	42	12.1	1,000
NRE-SN470M6.3V6.3x7F	47		0.24	55	8.47	1,000
NRE-SN100M10V4x7F	10	10	0.20	24	33.2	1,000
NRE-SN220M10V5x7F	22		0.20	40	15.1	1,000
NRE-SN330M10V6.3x7F	33		0.20	56	10.1	1,000
NRE-SN470M10V6.3x7F	47		0.20	67	7.06	1,000
NRE-SN100M16V4x7F	10		16	0.16	30	26.6
NRE-SN220M16V6.3x7F	22	0.16		51	9.09	1,000
NRE-SN330M16V6.3x7F	33	0.16		63	8.05	1,000
NRE-SN470M16V6.3x7F	47	0.16		68	5.65	1,000
NRE-SN3R3M25V4x7F	3.3	25		0.16	18	80.4
NRE-SN4R7M25V4x7F	4.7		0.16	20	56.5	1,000
NRE-SN100M25V5x7F	10		0.16	35	26.6	1,000
NRE-SN220M25V6.3x7F	22		0.16	53	9.09	1,000
NRE-SN2R2M35V4x7F	2.2		35	0.14	10	105.6
NRE-SN3R3M35V5x7F	3.3	0.14		16	70.4	1,000
NRE-SN4R7M35V5x7F	4.7	0.14		22	49.4	1,000
NRE-SN100M35V6.3x7F	10	0.14		37	23.2	1,000
NRE-SN1R0M50V4x7F	1.0	50		0.12	10	199
NRE-SN2R2M50V5x7F	2.2		0.12	14	90.5	1,000
NRE-SN3R3M50V5x7F	3.3		0.12	20	60.4	1,000
NRE-SN4R7M50V6.3x7F	4.7		0.12	27	42.4	1,000