

# Miniature Aluminum Electrolytic Capacitors

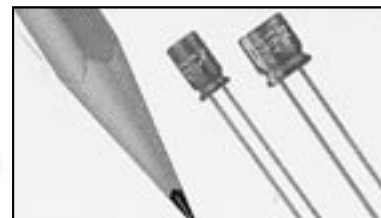
NRE-SX Series

LOW IMPEDANCE, SUBMINIATURE, RADIAL LEADS,  
POLARIZED ALUMINUM ELECTROLYTIC CAPACITORS

## FEATURES

- VERY LOW IMPEDANCE AT HIGH FREQUENCY
- LOW PROFILE 7mm HEIGHT
- WIDE TEMPERATURE, -55°C~ +105°C

**RoHS  
Compliant**  
includes all homogeneous materials  
\*See Part Number System for Details



## CHARACTERISTICS

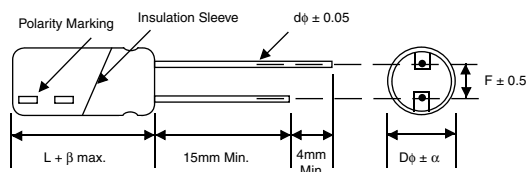
Rated Voltage Range	6.3 ~ 35Vdc					
Rated Capacitance Range	0.47 ~ 330μF					
Operating Temperature Range	-55~+105°C					
Max. Leakage Current After 1 minute At 20°C	0.01CV or 3μA, whichever is greater					
Surge Voltage & Max. Tan δ	W.V. (Vdc)	6.3	10	16	25	35
	S.V. (Vdc)	8	13	20	32	44
	Tan δ @ 120Hz/20°C	0.24	0.20	0.16	0.14	0.12
Low Temperature Stability (Impedance Ratio @ 120Hz)	W.V. (Vdc)	6.3	10	16	25	35
	Z-40°C/Z+20°C	3	2	2	2	2
	Z-55°C/Z+20°C	5	4	4	3	3
Load Life Test 105°C 1,000 Hours	Capacitance Change	Within ±25% of initial measured value				
	Tan δ	Less than 200% of specified value				
	Leakage Current	Less than specified value				

## STANDARD PRODUCT AND CASE SIZE TABLE Dφ x L (mm)

Cap (μF)	Code	Working Voltage				
		6.3	10	16	25	35
4.7	4R7	-	-	-	-	4x7
10	100	-	-	-	4x7	5x7
15	150	-	-	4x7	5x7	6.3x7
22	220	-	4x7	5x7	5x7	6.3x7
33	330	-	5x7	-	6.3x7	6.3x7
47	470	5x7	5x7	6.3x7	6.3x7	6.3x7
68	680	-	-	-	6.3x7	-
100	101	-	6.3x7	6.3x7	6.3x7	-
150	151	-	6.3x7	6.3x7	-	-
220	221	6.3x7	6.3x7	6.3x7	-	-
330	331	6.3x7	-	-	-	-

## LEAD SPACING AND DIAMETER (mm)

Case Dia. (Dφ)	4	5	6.3
Leads Dia. (dφ)	0.45	0.45	0.45
Lead Spacing (F)	1.5	2.0	2.5
Dim. α	0.5	0.5	0.5
Dim. β	1.0	1.0	1.0



## PRECAUTIONS

Please review the notes on correct use, safety and precautions found on pages T10 & T11 of NIC's Electrolytic Capacitor catalog.  
Also found at [www.niccomp.com/precautions](http://www.niccomp.com/precautions)  
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)



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

W.V (Vdc)	Cap ( $\mu$ F)	Code	Case Size D $\phi$ x L (mm)	Max. Z ( $\Omega$ ) 100KHz & 20°C	Max. Ripple Current (mA) 100KHz & 105°C
6.3	47	470	5 x 7	0.49	160
	220	221	6.3 x 7	0.24	280
	330	331	6.3 x 7	0.29	280
10	22	220	4 x 7	1.15	90
	33	330	5 x 7	0.49	160
	47	470	5 x 7	0.49	160
	100	101	6.3 x 7	0.24	280
	150	151	6.3 x 7	0.24	280
	220	221	6.3 x 7	0.29	280
16	15	150	4 x 7	1.15	90
	22	220	5 x 7	0.49	160
	47	470	6.3 x 7	0.24	280
	100	101	6.3 x 7	0.24	280
	150	151	6.3 x 7	0.29	280
	220	221	6.3 x 7	0.29	280
25	10	100	4 x 7	1.15	90
	15	150	5 x 7	0.49	160
	22	220	5 x 7	0.49	160
	33	330	6.3 x 7	0.24	280
	47	470	6.3 x 7	0.24	280
	68	680	6.3 x 7	0.24	280
	100	101	6.3 x 7	0.24	280
35	4.7	4R7	4 x 7	1.15	90
	10	100	5 x 7	0.49	160
	15	150	6.3 x 7	0.29	280
	22	220	6.3 x 7	0.29	280
	33	330	6.3 x 7	0.29	280
	47	470	6.3 x 7	0.29	280

### PART NUMBER SYSTEM

