

Miniature Aluminum Electrolytic Capacitors

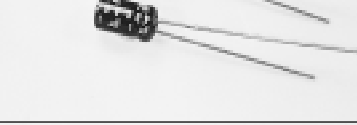
NRE-S Series

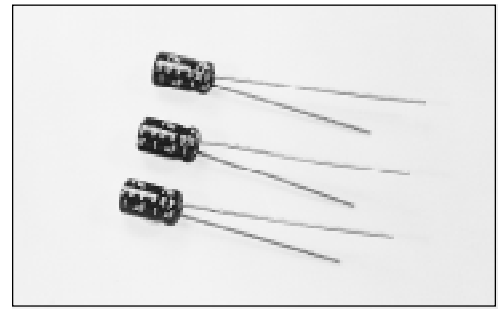
SUBMINIATURE, RADIAL LEADS, POLARIZED

FEATURES

- LOW PROFILE, 7mm HEIGHT
- STABLE & HIGH PERFORMANCE

CHARACTERISTICS

Rated Voltage Range		6.3 ~ 63 VDC								
Capacitance Range		0.1 ~ 220μF								
Operating Temperature Range		-40 ~ +85°C								
Capacitance Tolerance		± 20% (M)								
Max. Leakage Current @ (20°C)	After 2 min.	0.01CV or 3μA , whichever is greater								
Max. Tan δ @ 120Hz/20°C		W.V. (Vdc)	6.3	10	16	25	35	50	63	
		S.V. (Vdc)	8	13	20	32	44	63	79	
		Tan δ	0.24	0.20	0.16	0.14	0.12	0.10	0.08	
Low Temperature Stability Impedance Ratio @ 120Hz		Z-25°C/Z+20°C	4	3	2	2	2	2	2	
		Z-40°C/Z+20°C	10	8	6	4	4	4	4	
Load Life Test at Rated W.V. 85°C 1,000 Hours		Capacitance Change	Within ±25% of initial measured value							
		Tan δ	Less than 200% of specified maximum value							
		Leakage Current	Less than specified maximum value							



LEADED

MAXIMUM PERMISSIBLE RIPPLE CURRENT (mA rms) AT 120Hz AND 85°C

Cap (μ F)	Working Voltage (Vdc)						
	6.3	10	16	25	35	50	63
0.1						1.0	1.2
0.22						2.2	2.9
0.33						3.2	4.4
0.47						5.0	5.0
1.0						9	10
2.2						15	17
3.3						18	21
4.7				19	20	23	26
10			25	27	29	34	43
22	29	35	39	43	47	55	65
33	38	43	49	53	60	70	
47	46	53	59	70	75	80	
100	70	80	120	100	105		
220	95	110	110				
330	110						

MAXIMUM E.S.R. (Ω) at 120Hz AND 20°C

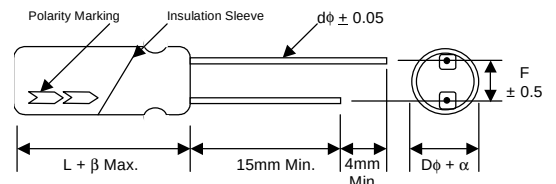
Cap (μ F)	Working Voltage (Vdc)						
	6.3	10	16	25	35	50	63
0.1						1680	1320
0.22						754	604
0.33						503	404
0.47						353	283
1.0						188	133
2.2						75.4	60.4
3.3						50.3	40.4
4.7				49.5	42.4	35.3	26.3
10			26.6	23.3	19.9	16.6	6.04
22	18.1	15.1	12.1	10.6	9.05	7.54	4.04
33	12.1	10.1	8.05	7.04	6.03	4.80	
47	8.47	7.06	5.65	4.85	4.24	3.53	
100	3.98	3.32	2.88	2.33	1.90		
220	2.49	1.51	1.21				
330	2.21						

LEAD SPACING AND DIAMETER (mm)

Case Dia. (D ϕ)	4	5	6.3
Leads Dia. (d ϕ)	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

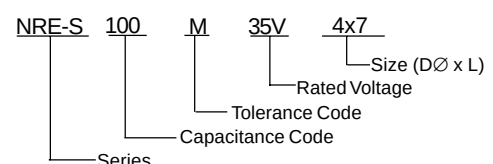
STANDARD PRODUCT AND CASE SIZE Table D ϕ x L (mm)

Cap (μ F)	Code	Working Voltage (Vdc)						
		6.3	10	16	25	35	50	63
0.1	R10						4 x 7	4 x 7
0.22	R22						4 x 7	4 x 7
0.33	R33						4 x 7	4 x 7
0.47	R47						4 x 7	4 x 7
1.0	1R0						4 x 7	4 x 7
2.2	2R2						4 x 7	4 x 7
3.3	3R3						4 x 7	4 x 7
4.7	4R7					4 x 7	4 x 7	5 x 7
10	100			4 x 7	4 x 7	4 x 7	5 x 7	6.3 x 7
22	220	4 x 7	4 x 7	4 x 7	5 x 7	5 x 7	6.3 x 7	6.3 x 7
33	330	4 x 7	4 x 7	5 x 7	5 x 7	6.3 x 7	6.3 x 7	
47	470	4 x 7	5 x 7	5 x 7	6.3 x 7	6.3 x 7	6.3 x 7	
100	101	5 x 7	6.3 x 7	6.3 x 7	6.3 x 7	6.3 x 7		
220	221	6.3 x 7	6.3 x 7	6.3 x 7				
330	331	6.3 x 7						



SLEEVE COLOR: DARK BLUE

PART NUMBERING SYSTEM



See page 8 for complete part numbering system.