

Surface Mount Aluminum Electrolytic Capacitors NACL Series

FEATURES

- CYLINDRICAL V-CHIP CONSTRUCTION
- LOW LEAKAGE CURRENT (0.5µA TO 2.0µA max.)
- LOW COST TANTALUM REPLACEMENT
- DESIGNED FOR REFLOW SOLDERING

**RoHS
Compliant**
includes all homogeneous materials

*See Part Number System for Details

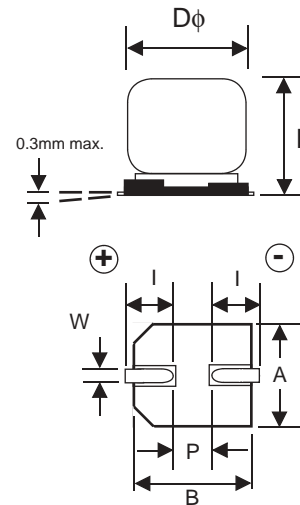


CHARACTERISTICS

Rated Voltage Rating	6.3 ~ 50Vdc						
Rated Capacitance Range	0.1 ~ 100µF						
Operating Temperature Range	-40° ~ +85°C						
Capacitance Tolerance	±20%(M)						
Max. Leakage Current After 2 Minutes at 20°C	0.002CV or 0.5µA, whichever is greater						
Surge Voltage & Max. Tanδ	W.V. (Vdc)	6.3	10	16	25	35	50
	S.V. (Vdc)	8.0	13	20	32	44	63
	Tanδ @ 120Hz/20°C	0.24	0.20	0.18	0.14	0.12	0.10
Low Temperature Stability (Impedance Ratio @ 120Hz)	W.V. (Vdc)	6.3	10	16	25	35	50
	Z-40°C/Z+20°C	4	3	2	2	2	2
	Z-55°C/Z+20°C	8	8	4	4	4	4
Load Life Test at Rated W.V. 85°C 2,000 Hours	Capacitance Change	Within ±25% of initial measured value					
	Tanδ	Less than 200% of specified value					
	Leakage Current	Less than specified value					

STANDARD PRODUCT AND CASE SIZE Dφ xL (mm)

Cap. (µF)	Code	Working Voltage (Vdc)					
		6.3	10	16	25	35	50
0.1	R10	-	-	-	-	-	4x5.5
0.22	R22	-	-	-	-	-	4x5.5
0.33	R33	-	-	-	-	-	4x5.5
0.47	R47	-	-	-	-	-	4x5.5
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	5x5.5	5x5.5	6.3x5.5
22	220	4x5.5	5x5.5	5x5.5	6.3x5.5	6.3x5.5	-
33	330	5x5.5	5x5.5	6.3x5.5	6.3x5.5	-	-
47	470	5x5.5	6.3x5.5	6.3x5.5	-	-	-
100	101	5x5.5	6.3x5.5	-	-	-	-



DIMENSIONS (mm)

Case Size	Dφ±0.5	L max.	A/B±0.2	l ± 0.2	W	P±0.2
4x5.5	4.0	5.5	4.3	1.8	0.5 ~ 0.8	1.0
5x5.5	5.0	5.5	5.3	2.1	0.5 ~ 0.8	1.4
6.3x5.5	6.3	5.5	6.6	2.5	0.5 ~ 0.8	2.2

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
If in doubt or uncertainty, please review your specific application - process details with NIC's technical support personnel: tpmg@niccomp.com



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	Max. ESR (Ω) +20°C/120Hz	Load Life Hours @ +85°C
NACL220M6.3V4X5.5TR13F	22	6.3	0.24	31	18.1	2,000
NACL330M6.3V5X5.5TR13F	33		0.24	39	12.6	2,000
NACL470M6.3V5X5.5TR13F	47		0.24	47	8.47	2,000
NACL101M6.3V5X5.5TR13F	100		0.24	71	3.98	2,000
NACL220M10V5X5.5TR13F	22	10	0.20	35	15.1	2,000
NACL330M10V5X5.5TR13F	33		0.20	43	10.1	2,000
NACL470M10V6.3X5.5TR13F	47		0.20	59	7.06	2,000
NACL101M10V6.3X5.5TR13F	100		0.20	76	3.32	2,000
NACL100M16V4X5.5TR13F	10	16	0.18	25	26.5	2,000
NACL220M16V5X5.5TR13F	22		0.18	39	12.1	2,000
NACL330M16V6.3X5.5TR13F	33		0.18	57	8.04	2,000
NACL470M16V6.3X5.5TR13F	47		0.18	68	5.65	2,000
NACL4R7M25V4X5.5TR13F	4.7	25	0.14	18	49.5	2,000
NACL100M25V5X5.5TR13F	10		0.14	28	23.2	2,000
NACL220M25V6.3X5.5TR13F	22		0.14	52	10.6	2,000
NACL330M25V6.3X5.5TR13F	33		0.14	63	7.04	2,000
NACL4R7M35V4X5.5TR13F	4.7	35	0.12	20	42.3	2,000
NACL100M35V5X5.5TR13F	10		0.12	30	19.9	2,000
NACL220M35V6.3X5.5TR13F	22		0.12	54	9.05	2,000
NACL10M50V4X5.5TR13F	0.1		50	0.10	1.0	1660
NACL22M50V4X5.5TR13F	0.22	0.10		2.3	754	2,000
NACL33M50V4X5.5TR13F	0.33	0.10		3.5	503	2,000
NACL47M50V4X5.5TR13F	0.47	0.10		5	353	2,000
NACL1R0M50V4X5.5TR13F	1.0	0.10		10	166	2,000
NACL2R2M50V4X5.5TR13F	2.2	0.10		15	75.4	2,000
NACL3R3M50V4X5.5TR13F	3.3	0.10		18	50.3	2,000
NACL4R7M50V5X5.5TR13F	4.7	0.10		23	35.3	2,000
NACL100M50V6.3X5.5TR13F	10	0.10	34	16.6	2,000	

RIPPLE CURRENT FREQUENCY CORRECTION FACTOR

Frequency (Hz)	f ≤ 100	100 > f ≤ 1K	1K > f ≤ 10K	f ≥ 100K
Correction Factor	0.8	1.0	1.3	1.5

PART NUMBER SYSTEM

