Surface Mount Aluminum Electrolytic Capacitors NACV Series

FEATURES

- CYLINDRICAL V-CHIP CONSTRUCTION FOR SURFACE MOUNT
- HIGH VOLTAGE (160VDC AND 400VDC)
- 8 x10.8mm ~ 16 x17mm CASE SIZES
- LONG LIFE (2000 HOURS AT +105°C)
- DESIGNED FOR REFLOW SOLDERING

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

CHARACTERISTICS

Rated Voltage Range		160	200	250	400
Rated Capacitance Range		10 ~ 82	10 ~ 68	3.3 ~ 47	2.2 ~ 22
Operating Temperature Range		-40 ~ +105°C			
Capacitance Tolerance		±20% (M)			
Max. Leakage Current After 2 Minutes		0.03CV + 15µA			
		0.02CV + 25µA			
Max. Tanδ @ 120Hz		0.20	0.20	0.20	0.25
Low Temperature Stability (Impedance Ratio @ 120Hz)	Z-25°C/Z+20°C	3	3	3	6
	Z-40°C/Z+20°C	6	6	6	10
High Temperature Load Life at 105°C 2,000 hrs φD > 10mm 1,000 hrs φD = 8mm	Capacitance Change	Within ±25% of initial measured value			
	Tan δ	Less than 200% of specified value			
	Leakage Current	Less than the specified value			

MAXIMUM RIPPLE CURRENT (mA rms AT 120Hz AND 105°C)

Cap. (µF)	Working Voltage			
	160	200	250	400
2.2	-	-	-	25
3.3	-	-	31	36
4.7	-	-	37	38
6.8	-	-	44	47
10	57	64	64	57
22	112	112	112	115
33	137	137	150	-
47	180	180	180	-
68	215	215	-	-
82	235	-	-	-

MAXIMUM ESR (Ω AT 120Hz AND 20°C)

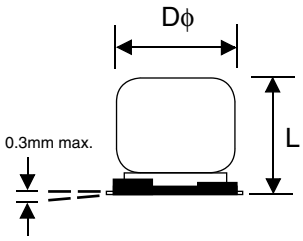
Cap. (µF)	Working Voltage			
	160	200	250	400
2.2	-	-	-	188.5
3.3	-	-	100.5	125.7
4.7	-	-	70.6	88.2
6.8	-	-	48.8	61.0
10	33.2	33.2	33.2	41.5
22	15.1	15.1	15.1	18.8
33	10.1	10.1	10.1	-
47	7.1	7.1	7.1	-
68	4.9	4.9	-	-
82	4.0	-	-	-

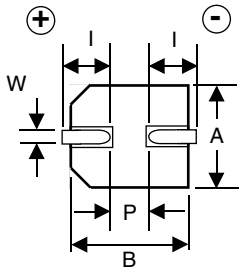
STANDARD PRODUCTS AND CASE SIZES (mm)

Cap. (µF)	Code	Working Voltage			
		160	200	250	400
2.2	2R2	-	-	-	8x10.8
3.3	3R3	-	-	8x10.8	10x10.8
4.7	4R7	-	-	8x10.8	10x10.8
6.8	6R8	-	-	8x10.8	12.5x14
10	100	8x10.8	10x10.8	10x10.8	12.5x14
22	220	12.5x14	12.5x14	12.5x14	16x17
33	330	12.5x14	12.5x14	16x17	-
47	470	16x17	16x17	16x17	-
68	680	16x17	16x17	-	-
82	820	16x17	-	-	-

DIMENSIONS (mm)

Case Size	Dφ±0.5	L max.	A±0.2	B±0.2	I±0.2	W	P±0.2
8x10.8	8.0	10.8	8.3	8.3	2.9	0.7~1.0	3.2
10x10.8	10.0	10.8	10.3	10.3	3.2	1.1~1.4	4.6
12.5x14	12.5	14.0	12.8	12.8	4.5	1.1~1.4	4.6
16x17	16.0	17.0	16.3	16.3	5.0	1.8~2.1	7.0





PART NUMBER SYSTEM

NACV 100 M 200V 10x10.8 TR 13 F

- F — RoHS Compliant 97% Sn (min.), 3% Bi (max.)
- 13 — 330mm (13") Reel
- TR — Tape & Reel
- 10x10.8 — Size in mm
- 200V — Working Voltage
- M — Tolerance Code M=20%, K=10%
- 100 — Capacitance Code in µF, first 2 digits are significant. Third digit is no. of zeros, "R" indicates decimal for values under 10mF
- NACV — Series

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**