

# Surface Mount Aluminum Electrolytic Capacitors NACT Series

## FEATURES

- EXTENDED TEMPERATURE +125°C
- CYLINDRICAL V-CHIP CONSTRUCTION FOR SURFACE MOUNTING
- WIDE TEMPERATURE RANGE AND HIGH RIPPLE CURRENT
- DESIGNED FOR AUTOMATIC MOUNTING AND REFLOW SOLDERING

**RoHS  
Compliant**  
includes all homogeneous materials

\*See Part Number System for Details



## CHARACTERISTICS

Rated Voltage Range	6.3 ~ 50 Vdc						
Rated Capacitance Range	33 ~ 1500 $\mu$ F						
Operating Temperature Range	-40° ~ +125°C						
Capacitance Tolerance	$\pm$ 20%(M), $\pm$ 10%(K)*						
Max. Leakage Current After 2 Minutes at 20°C	0.01CV or 3 $\mu$ A, whichever is greater						
Surge Voltage & Max. Tan $\delta$	W.V. (Vdc)	6.3	10	16	25	35	50
	S.V. (Vdc)	8.0	13	20	32	44	63
	Tan $\delta$ @ 120Hz/20°C	0.30	0.24	0.20	0.16	0.14	0.14
Low Temperature Stability (Impedance Ratio @ 120Hz)	W.V. (Vdc)	6.3	10	16	25	35	50
	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. 125°C 1,500 Hours	Capacitance Change	Within +25% of initial measured value					
	Tan $\delta$	Less than 300% of specified value					
	Leakage Current	Less than specified value					

\*Optional  $\pm$  10% (K) Tolerance available on most values. Contact factory for availability.

## MAXIMUM PERMISSIBLE RIPPLE CURRENT (mA rms AT 120Hz AND 125°C)

Cap. ( $\mu$ F)	Working Voltage					
	6.3	10	16	25	35	50
33	-	-	-	-	-	100
47	-	-	-	-	110	160
100	-	-	-	110	190	210
150	-	-	-	-	250	220
220	-	-	120	200	260	220
330	-	120	210	270	-	-
470	140	210	290	-	-	-
680	210	300	300	-	-	-
1000	330	320	-	-	-	-
1500	350	-	-	-	-	-

## MAXIMUM ESR ( $\Omega$ AT 120Hz AND 20°C)

Cap. ( $\mu$ F)	Working Voltage (Vdc)					
	6.3	10	16	25	35	50
33	-	-	-	-	-	7.05
47	-	-	-	-	4.95	4.95
100	-	-	-	2.65	2.32	2.32
150	-	-	-	-	1.55	1.55
220	-	-	1.51	1.21	1.06	1.06
330	-	1.21	1.01	0.81	-	-
470	1.06	0.85	0.71	-	-	-
680	0.73	0.59	0.49	-	-	-
1000	0.50	0.40	-	-	-	-
1500	0.33	-	-	-	-	-

## RIPPLE CURRENT FREQUENCY CORRECTION FACTOR

Frequency (Hz)	100 $\leq$ f <1K	1K $\leq$ f <10K	10K $\leq$ f <100K	100K $\leq$ f
C $\leq$ 33 $\mu$ F	1.0	1.2	1.3	1.45
33 $\mu$ F < C	1.0	1.1	1.2	1.3

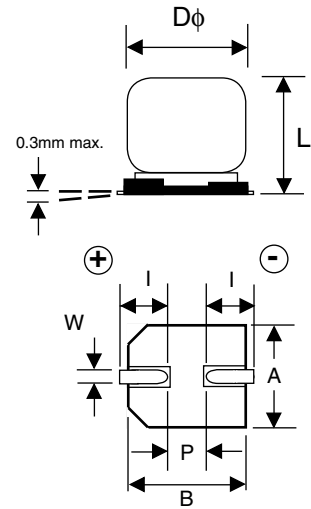
### PRECAUTIONS

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 PRODUCT AND CASE SIZE D $\phi$ xL (mm)

Cap.( $\mu$ F)	Code	Working Voltage (Vdc)					
		6.3	10	16	25	35	50
33	330	-	-	-	-	-	8x10.5
47	470	-	-	-	-	8x10.5	10x10.5
100	101	-	-	-	8x10.5	10x10.5	12.5x14
150	151	-	-	-	-	12.5x14	12.5x14
220	221	-	-	8x10.5	10x10.5	12.5x14	12.5x14
330	331	-	8x10.5	10x10.5	12.5x14	-	-
470	471	8x10.5	10x10.5	12.5x14	-	-	-
680	681	10x10.5	12.5x14	12.5x14	-	-	-
1000	102	12.5x14	12.5x14	-	-	-	-
1500	152	12.5x14	-	-	-	-	-



## DIMENSIONS (mm)

Case Size	D $\phi$ $\pm$ 0.5	L max.	A, B $\pm$ 0.2	H max.	I $\pm$ 0.3	P $\pm$ 0.3	W	K
8 x 10.5	8.0	10.5	8.3	10.0	3.4	3.1	0.9 $\pm$ 0.2	0.7 $\pm$ 0.2
10 x 10.5	10.0	10.5	10.3	12.0	3.5	4.6	0.9 $\pm$ 0.2	0.7 $\pm$ 0.2
12.5 x 14T2	12.5	14.0	13.5	15.0	4.7	4.4	0.9 $\pm$ 0.3	0.7 $\pm$ 0.3

## PART NUMBER SYSTEM

