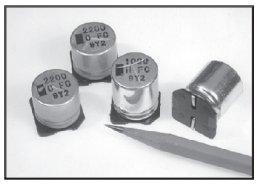
Surface Mount Aluminum Electrolytic Capacitors NACZF Series

FEATURES

- CYLINDRICAL LEADLESS TYPE FOR SURFACE MOUNTING
- HIGH CAPACITANCE VALUES (UP TO 6800µF)
- LOW IMPEDANCE/HIGH RIPPLE CURRENT AT 100KHz
- 12.5mm x 17mm ~ 18mm x 22mm CASE SIZES
- WIDE TERMINATION STYLE FOR HIGH VIBRATION APPLICATIONS
- LONG LIFE (5000 HOURS AT +105°C)
- DESIGNED FOR REFLOW SOLDERING

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



CHARACTERISTICS

Rated Voltage Range		6.3 ~ 100Vdc						
Rated Capacitance Range		47 ~ 6,800µF						
Operating Temperature Range		-40°C ~ +105°C						
Capacitance Tolerance		±20% (M)						
Max. Leakage Current After 2 Minutes		0.01CV or 3µA whichever is greater						
Working Voltage		6.3Vdc	10Vdc	16Vdc	25Vdc	35Vdc	50Vdc	63Vdc	100Vdc
Surge Voltage		8.0Vdc	13Vdc	20Vdc	32Vdc	44vdc	63Vdc	79Vdc	125Vdc
Max. Tanδ at 120Hz & 20°C	C ≤ 1000µF	-	0.19	0.16	0.14	0.12	0.10	0.08	0.07
	C = 2200µF	0.24	0.21	0.18	0.16	0.14	-	-	-
	C = 3300µF	0.26	0.23	0.20	-	-	-	-	-
	C = 4700µF	0.28	0.25	-	-	-	-	-	-
	C = 6800µF	0.32	0.29	-	-	-	-	-	-
Low Temperature Stability (Impedance Ratio @ 120Hz)	Z-25°C/Z+20°C	2	2	2	2	2	2	2	2
	Z-40°C/Z+20°C	3	3	3	3	3	3	3	3
High Temperature Load Life 5,000 Hours at +105°C Rated WVDC	Capacitance Change	Within ±20% of initial measured value							
	Tan δ	Less than 200% of specified value							
	Leakage Current	Less than the specified maximum value							
Resistance to Soldering Heat Within the Recommended Re ow Conditions	Capacitance Change	Within ±10% of initial measured value							
	Tan δ	Less than the specified maximum value							
	Leakage Current	Less than the specified maximum value							

MAXIMUM RIPPLE CURRENT (mA rms AT 100KHz AND 105°C)

Cap (µF)	Working Voltage (Vdc)							
	6.3	10	16	25	35	50	63	100
47	-	-	-	-	-	-	-	511
68	-	-	-	-	-	-	1020	511
100	-	-	-	-	-	-	1020	511
220	-	-	-	-	-	1150	1410	917
330	-	-	-	-	1205	1610	1690	1230
470	-	-	-	1205	1690	1900	2290	-
1000	-	1205	1690	2000	2000	2420	-	-
2200	1690	1690	2000	2490	2490	-	-	-
3300	2000	2000	2490	1060 | 2490	-	-	-	-
4700	2205	2490	-	-	-	-	-	-
6800	2490	2490	-	-	-	-	-	-

MAXIMUM IMPEDANCE (Ω AT 100KHz AND 20°C)

Cap (µF)	Working Voltage (Vdc)							
	6.3	10	16	25	35	50	63	100
47	-	-	-	-	-	-	-	0.300
68	-	-	-	-	-	-	0.150	0.300
100	-	-	-	-	-	-	0.150	0.180
220	-	-	-	-	-	0.110	0.090	0.155
330	-	-	-	-	0.65	0.800	0.086	0.083
470	-	-	-	0.065	0.043	0.068	0.055	-
1000	-	0.065	0.043	0.038	0.038	0.042	-	-
2200	0.043	0.043	0.038	0.028	0.028	-	-	-
3300	0.038	0.038	0.028	0.033 | 0.028	-	-	-	-
4700	0.029	0.028	-	-	-	-	-	-
6800	0.028	0.028	-	-	-	-	-	-

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**

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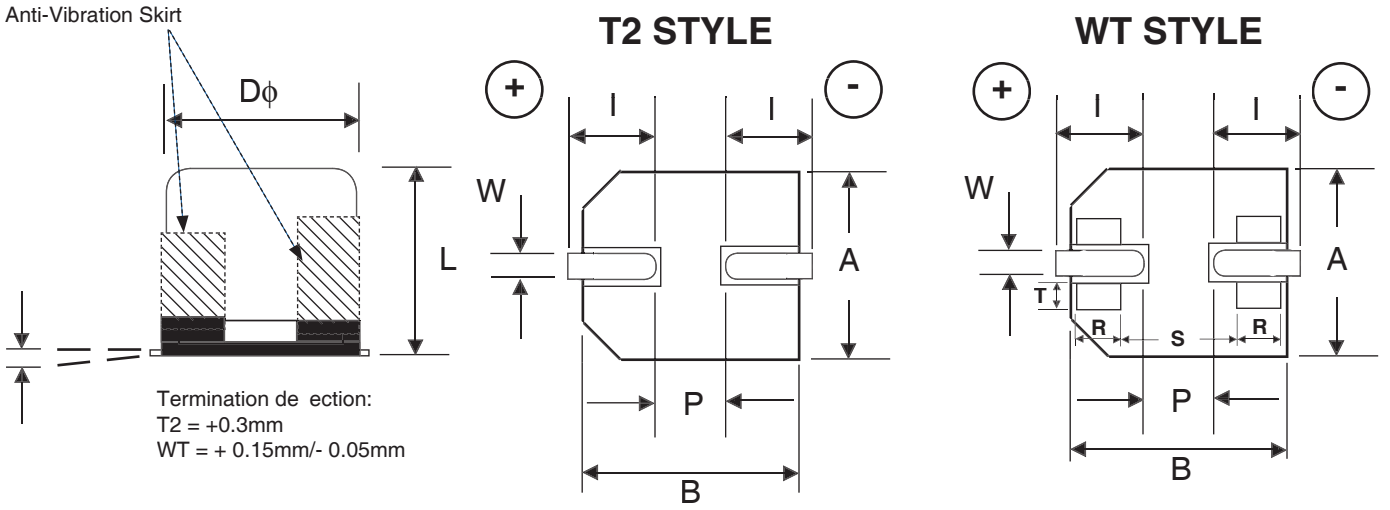
STANDARD PRODUCT AND CASE SIZE TABLE DϕxL (mm)

Cap (µF)	Code	Working Voltage (Vdc)							
		6.3	10	16	25	35	50	63	100
47	470	-	-	-	-	-	-	-	12.5 x 17
68	680	-	-	-	-	-	-	12.5 x 17	12.5 x 17
100	101	-	-	-	-	-	-	12.5 x 17	16 x 17
220	221	-	-	-	-	-	12.5 x 17	16 x 17	18 x 17
330	331	-	-	-	-	12.5 x 17	16 x 17	18 x 17	18 x 22
470	471	-	-	-	12.5 x 17	16 x 17	18 x 17	18 x 22	-
1000	102	-	12.5 x 17	16 x 17	18 x 17	18 x 17	18 x 22	-	-
2200	222	16 x 17	16 x 17	18 x 17	18 x 22	18 x 22	-	-	-
3300	332	18 x 17	18 x 17	18 x 22	18 x 17** | 18 x 22	-	-	-	-
4700	472	18 x 22	18 x 22	-	-	-	-	-	-
6800	682	18 x 22	18 x 22	-	-	-	-	-	-

Note:**DF 0.18

DIMENSIONS (mm)

Case Size	Dϕ ±0.5	L max.	A ±0.2	B ±0.2	I ±0.2	W	P ±0.2	R	S	T
12.5 x 17T2	12.5	17.5	13.5	13.5	4.7	0.6 ~ 1.2	4.4	-	-	-
12.5 x 17WT	12.5	17.5	13.5	13.5	4.7	0.9 ~ 1.5	4.4	2.2	7.1	2.4
16 x 17T2	16.0	17.5	17.0	17.0	5.5	0.9 ~ 1.5	6.7	-	-	-
16 x 17WT	16.0	17.5	17.0	17.0	5.5	1.2 ~ 1.6	6.7	3.0	9.0	1.9
16 x 22T2	16.0	22.5	17.0	17.0	5.5	0.9 ~ 1.5	6.7	-	-	-
16 x 22WT	16.0	22.5	17.0	17.0	5.5	1.2 ~ 1.6	6.7	3.0	9.0	1.9
18 x 17T2	18.0	17.5	19.0	19.0	6.5	0.9 ~ 1.5	6.7	-	-	-
18 x 17WT	18.0	17.5	19.0	19.0	6.5	1.2 ~ 1.6	6.7	3.0	11.0	1.9
18 x 22T2	18.0	22.5	19.0	19.0	6.5	0.9 ~ 1.5	6.7	-	-	-
18 x 22WT	18.0	22.5	19.0	19.0	6.5	1.2 ~ 1.6	6.7	3.0	11.0	1.9



PART NUMBER SYSTEM

NACZF 102 M 16V 16x17 TR 13 WT F

- F — RoHS Compliant Terminations (100% Sn)
- WT — Terminal Style: T2 = 2 Terminal, WT = Wide Terminal
- 13 — 330mm (13") Reel
- TR — Tape & Reel
- 16x17 — Size in mm
- 16V — Working Voltage
- M — Tolerance Code M=20%, K=10%
- 102 — Capacitance Code in mF, first 2 digits are significant. Third digit is no. of zeros, "R" indicates decimal for values under 10µF
- NACZF — Series