

Surface Mount Aluminum Electrolytic Capacitors NACZF Series

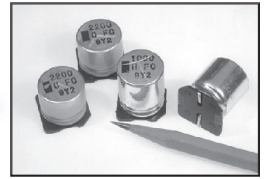
FEATURES

- CYLINDRICAL LEADLESS TYPE FOR SURFACE MOUNTING
- HIGH CAPACITANCE VALUES (UP TO 6800 μ F)
- 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 ~ 6,800 μ F									
Operating Temperature Range	-40°C ~ +105°C									
Capacitance Tolerance	±20% (M)									
Max. Leakage Current After 2 Minutes	0.01CV or 3 μ A 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. Tan δ at 120Hz & 20°C	C ≤ 1000 μ F	-	0.19	0.16	0.14	0.12	0.10	0.08	0.07	
	C = 2200 μ F	0.24	0.21	0.18	0.16	0.14	-	-	-	
	C = 3300 μ F	0.26	0.23	0.20	-	-	-	-	-	
	C = 4700 μ F	0.28	0.25	-	-	-	-	-	-	
	C = 6800 μ F	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 Reflow 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 (μ F)	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 (μ F)	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



STANDARD PRODUCT AND CASE SIZE TABLE D ϕ xL (mm)

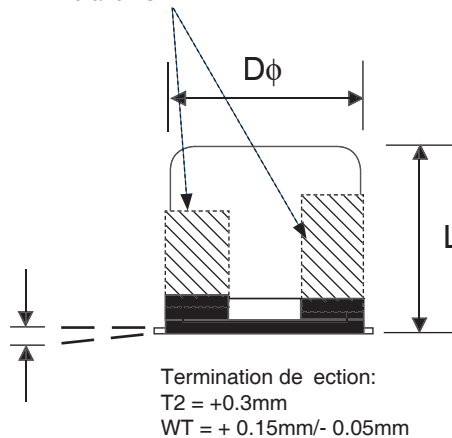
Cap (μ F)	Code	Working Voltage (Vdc)							
		6.3	10	16	25	35	50	63	100
47	470	-	-	-	-	-	-	-	12.5 x 17
68	680	-	-	-	-	-	-	12.5 x 17	12.5 x 17
100	101	-	-	-	-	-	-	12.5 x 17	16 x 17
220	221	-	-	-	-	-	12.5 x 17	16 x 17	18 x 17
330	331	-	-	-	-	12.5 x 17	16 x 17	18 x 17	18 x 22
470	471	-	-	-	12.5 x 17	16 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

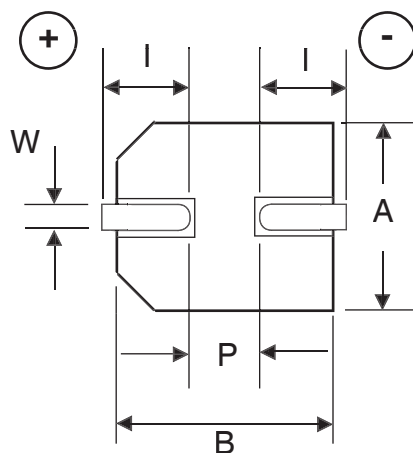
DIMENSIONS (mm)

Case Size	D ϕ $\pm$ 0.5	L max.	A $\pm$ 0.2	B $\pm$ 0.2	I $\pm$ 0.2	W	P $\pm$ 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

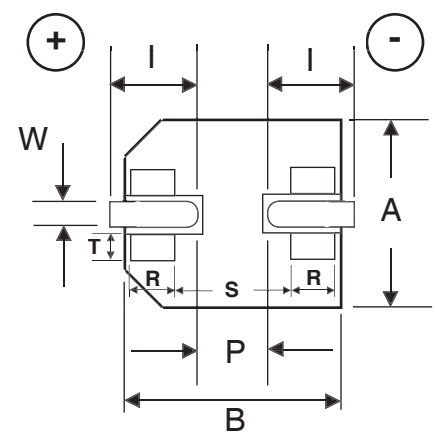
Anti-Vibration Skirt



T2 STYLE



WT STYLE



PART NUMBER SYSTEM

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