Surface Mount Aluminum Electrolytic Capacitors

NACZ Series

FEATURES

- CYLINDRICAL LEADLESS TYPE FOR SURFACE MOUNTING
- VERY LOW IMPEDANCE & HIGH RIPPLE CURRENT AT 100K Hz
- SUITABLE FOR DC-DC CONVERTER, DC-AC INVERTER, ETC.
- NEW EXPANDED CV RANGE, UP TO 3300µF
- ANTI-SOLVENT (2 MINUTES)
- DESIGNED FOR AUTOMATIC MOUNTING AND REFLOW SOLDERING

LOW ESR COMPONENT
LIQUID ELECTROLYTE
For Performance Data
see www.LowESR.com

CHARACTERISTICS

Rated Voltage Range	6.3 ~ 50 Vdc							
Rated Capacitance Range	4.7 ~ 3300µF							
Operating Temp. Range	-55 ~ +105°C							
Capacitance Tolerance	±20%(M), ±10%(K)*							
Max. Leakage Current After 2 Minutes @ 20°C	0.01CV or 3µA, whichever is greater							
Tanδ @ 120Hz/20°C	W.V. (Vdc)		6.3	10	16	25	35	50
	S.V. (Vdc)		8.0	13	20	32	44	63
	4 ~ 6mm Dia.		0.24	0.20	0.16	0.14	0.12	0.10
	8mm Dia ~ up	C ≤ 1000µF	0.28	0.24	0.20	0.16	0.14	0.12
		C =1500µF	0.29	0.25	0.21	-	-	-
		C =2200µF	0.30	0.26	-	-	-	-
		C =3300µF	0.32	-	-	-	-	-
Low Temperature Stability Impedance Ratio @ 120Hz	W.V. (Vdc)		6.3	10	16	25	35	50
	Z-40°C/Z +20°C		3	2	2	2	2	2
	Z-55°C/Z +20°C		5	4	4	3	3	3
Load LifeTest @ 105°C 4~6mm Dia 1,000 Hours 8~12.5mm Dia 2,000 Hours	Capacitance Change		Within ±25% of initial measured value					
	Tanδ		Less than 200% of specified max. value					
	Leakage Current		Less than specified max. value					

LOW IMPEDANCE AT HIGH FREQUENCY.
INDUSTRY STANDARD
STYLE FOR SWITCHERS
AND CONVERTERS

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

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

Cap (µF)	Working Voltage (Vdc)					
	6.3	10	16	25	35	50
4.7	-	-	-	-	80	-
10	-	-	-	80	150	165
15	-	-	80	150	150	-
22	-	80	150	150	150	165
27	80	-	-	-	-	-
33	-	150	-	230	230	185
47	150	-	230	230	230	185
56	150	-	-	230	-	-
68	-	230	230	230	280	300
100	230	-	230	280	-	300
120	-	230	-	-	-	-
150	230	-	280	450	450	670
220	230	280	280	450	450	670
330	280	450	450	450	670	620
470	450	450	450	670	-	790
680	450	-	670	-	900	-
1000	450	670	-	900	-	-
1500	670	-	900	-	-	-
2200	-	900	-	-	-	-
3300	900	-	-	-	-	-

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

Cap (µF)	Working Voltage (Vdc)					
	6.3	10	16	25	35	50
4.7	-	-	-	-	1.80	-
10	-	-	-	1.80	0.76	0.88
15	-	-	1.80	0.76	0.76	-
22	-	1.80	0.76	0.76	0.76	0.88
27	1.80	-	-	-	-	-
33	-	0.76	-	0.44	0.44	0.75
47	0.76	-	0.44	0.44	0.44	0.75
56	0.76	-	-	0.44	-	-
68	-	0.44	0.44	0.44	0.34	0.40
100	0.44	-	0.44	0.34	-	0.40
120	-	0.44	-	-	-	-
150	0.44	-	0.34	0.17	0.17	0.22
220	0.44	0.34	0.34	0.17	0.17	0.22
330	0.34	0.17	0.17	0.17	0.09	0.14
470	0.17	0.17	0.17	0.09	-	0.078
680	0.17	-	0.09	-	0.066	-
1000	0.17	0.09	-	0.066	-	-
1500	0.09	-	0.066	-	-	-
2200	-	0.066	-	-	-	-
3300	0.066	-	-	-	-	-

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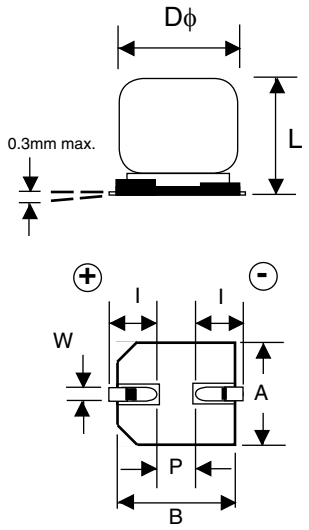
STANDARD PRODUCT AND CASE SIZE TABLE Df x L (mm)

Cap (µF)	Code	Working Voltage (Vdc)					
		6.3	10	16	25	35	50
4.7	4R7	-	-	-	-	4x6.3	-
10	100	-	-	-	4x6.3*	5x6.3*	6.3x6.3*
15	150	-	-	4x6.3	5x6.3	5x6.3*	-
22	220	-	4x6.3	5x6.3*	5x6.3	5x6.3*	6.3x6.3*
27	270	4x6.3*	-	-	-	-	-
33	330	-	5x6.3	-	6.3x6.3	6.3x6.3*	6.3x8*
47	470	5x6.3	-	6.3x6.3	6.3x6.3	6.3x6.3*	6.3x8*
56	560	5x6.3*	-	-	6.3x6.3	-	-
68	680	-	6.3x6.3	6.3x6.3*	6.3x6.3	6.3x8*	8x10.5*
100	101	6.3x6.3*	-	6.3x6.3*	6.3x8*	-	8x10.5*
120	121	-	6.3x6.3	-	-	-	-
150	151	6.3x6.3	-	6.3x8*	8x10.5*	8x10.5* 10x8	10x10.5*
220	221	6.3x6.3	6.3x8	6.3x8*	8x10.5* 10x8	8x10.5	10x10.5
330	331	6.3x8*	8x10.5	8x10.5* 10x8	8x10.5	10x10.5	12.5x14
470	471	8x10.5	8x10.5 10x8	8x10.5	10x10.5*	-	16x17
680	681	10x8*	-	10x10.5	-	12.5x14	-
1000	102	8x10.5*	10x10.5	-	12.5x14	-	-
1500	152	10x10.5*	-	12.5x14	-	-	-
2200	222	-	12.5x14	-	-	-	-
3300	332	12.5x14	-	-	-	-	-

*Denotes values available in optional 10% tolerance



SEE PAGE 38
For Case Size Data
SEE PAGE 39
For Taping/Packaging Data

DIMENSIONS (mm) and STANDARD REEL QUANTITIES

Case Size	DØ ± 0.5	L max.	A ± 0.2	B ± 0.3	I ± 0.3	W	P ± 0.3	Q'ty per Reel
4x6.3	4.0	6.3	4.3	4.3	1.8	0.5-0.8	1.0	1,200 pcs
5x6.3	5.0	6.3	5.3	5.3	2.2	0.5-0.8	1.5	800 pcs
6.3x6.3	6.3	6.3	6.6	6.6	2.5	0.5-0.8	2.2	800 pcs
6.3x8	6.3	8.0	6.6	6.6	2.5	0.5-0.8	2.2	500 pcs
8x10.5	8.0	10.5	8.3	8.3	2.9	1.1~1.4	3.2	300 pcs
10x8	10.0	8.0	10.3	10.3	3.2	1.1~1.4	4.6	300 pcs
10x10.5	10.0	10.5	10.3	10.3	3.2	1.1~1.4	4.6	300 pcs
12.5x14	12.5	14.0	12.8	12.8	4.5	1.1~1.4	4.6	200 pcs
16x17	16.0	17.0	16.3	16.3	5.0	1.8 ~ 2.1	7.0	125 pcs