

FEATURES

- STANDARD COIN TYPE CONSTRUCTION
- HIGH TEMPERATURE (+70°C FOR DISCHARGE)
- GREEN MEETING RoHS REQUIREMENTS
- LONG CHARGE-DISCHARGE CYCLE LIFE
- LOW LEAKAGE CURRENT, SUITABLE FOR MAINTAIN RTC

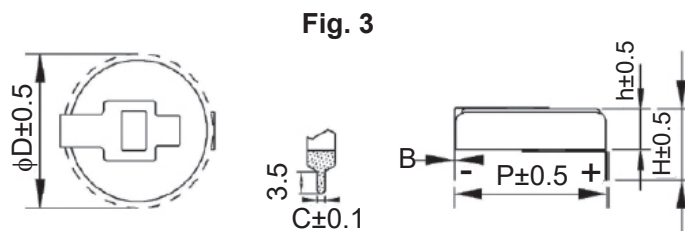
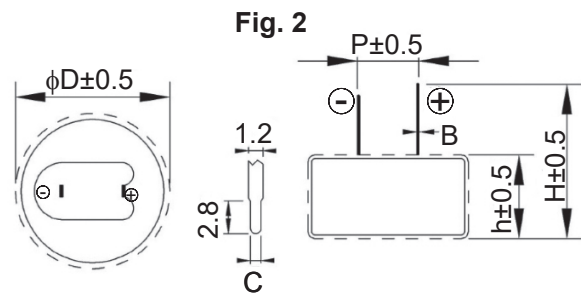
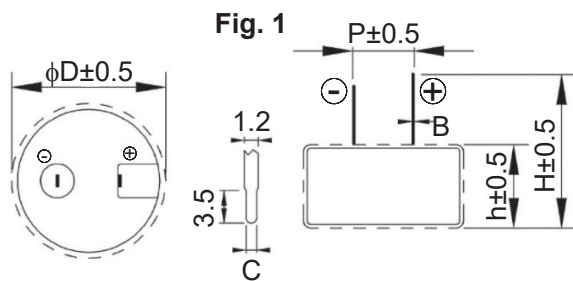
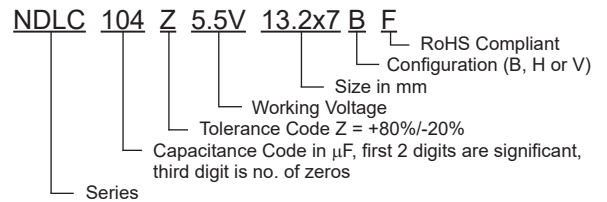
NDLC CHARACTERISTICS

Rated Voltage Rating	5.5VDC	
Rated Capacitance Range	0.1 ~ 1.5F (100,000 μ F ~ 1,500,000 μ F)	
Operating Temp. Range	-25°C ~ +70°C	
Capacitance Tolerance	+80/-20% (Z)	
Load Life @ +70°C 1,000 hours	Δ C: Less than or equal to 30% of the initial value	
	ESR: Less than or equal to 4 times the initial value	
	Appearance: No leakage or mechanical damage	
Temperature Characteristic -25°C ~ +70°C	-25°C \pm 2°C	Δ C: Less than or equal to 30% of the initial value
		Δ ESR: Less than or equal to 400% of the initial value
	+70°C \pm 2°C	Δ C: Less than or equal to 30% of the initial value
		Δ ESR: Less than or equal to initial value

CASE DIMENSIONS (mm)

NIC P/N	DIMENSIONS (mm)						
	D \pm 0.5	h \pm 0.5	H \pm 1.0	P \pm 0.5	B \pm 0.1	C	Fig.
NDLC104Z5.5V13.2X7BF	13.2	7.0	13.0	5.0	0.4 \pm 0.1	0.8 \pm 0.10	2
NDLC224Z5.5V13.2X7BF	13.2	7.0	13.0	5.0	0.4 \pm 0.1	0.8 \pm 0.10	2
NDLC334Z5.5V13.2X7BF	13.2	7.0	13.0	5.0	0.4 \pm 0.1	0.8 \pm 0.10	2
NDLC474Z5.5V13.2X7BF	13.2	7.0	13.0	5.0	0.4 \pm 0.1	0.8 \pm 0.10	2
NDLC684Z5.5V21X7.5BF	21.0	7.5	12.5	5.5	0.5 \pm 0.1	0.8 \pm 0.15	1
NDLC105Z5.5V21X7.5BF	21.0	7.5	12.5	5.5	0.5 \pm 0.1	0.8 \pm 0.15	1
NDLC155Z5.5V21X7.5BF	21.0	7.5	12.5	5.5	0.5 \pm 0.1	0.8 \pm 0.15	1
NDLC104Z5.5V12X4.8HF	12.0	4.8	10	10	0.2 \pm 0.05	0.8 \pm 0.10	3
NDLC224Z5.5V12X4.8HF	12.0	4.8	10	10	0.2 \pm 0.05	0.8 \pm 0.10	3
NDLC334Z5.5V12X4.8HF	12.0	4.8	10	10	0.2 \pm 0.05	0.8 \pm 0.10	3
NDLC474Z5.5V12X4.8HF	12.0	4.8	10	10	0.2 \pm 0.05	0.8 \pm 0.10	3

PART NUMBER SYSTEM



CASE DIMENSIONS (mm)

NIC P/N	DIMENSIONS (mm)						Fig.
	D±0.5	h±0.5	H±1.0	P±0.5	B±0.1	C	
NDLC684Z5.5V19.2X4.8HF	19.2	4.8	9.5	19.5	0.2±0.05	1.0±0.10	4
NDLC105Z5.5V19.2X4.8HF	19.2	4.8	9.5	19.5	0.2±0.05	1.0±0.10	4
NDLC155Z5.5V19.2X4.8HF	19.2	4.8	9.5	19.5	0.2±0.05	1.0±0.10	4
NDLC104Z5.5V12X4.8VF	12.0	4.8	16.2	5.0	0.2±0.05	0.8±0.10	5
NDLC224Z5.5V12X4.8VF	12.0	4.8	16.2	5.0	0.2±0.05	0.8±0.10	5
NDLC334Z5.5V12X4.8VF	12.0	4.8	16.2	5.0	0.2±0.05	0.8±0.10	5
NDLC474Z5.5V12X4.8VF	12.0	4.8	16.2	5.0	0.2±0.05	0.8±0.10	5
NDLC684Z5.5V19.2X4.8VF	19.2	4.8	24.0	5.0	0.2±0.05	1.0±0.10	6
NDLC105Z5.5V19.2X4.8VF	19.2	4.8	24.0	5.0	0.2±0.05	1.0±0.10	6
NDLC155Z5.5V19.2X4.8VF	19.2	4.8	24.0	5.0	0.2±0.05	1.0±0.10	6

Fig. 4

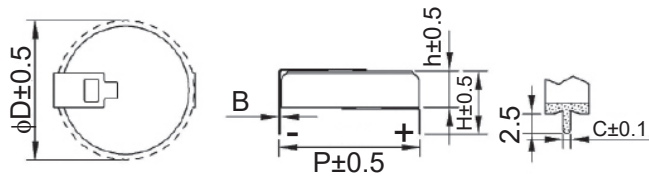


Fig. 5

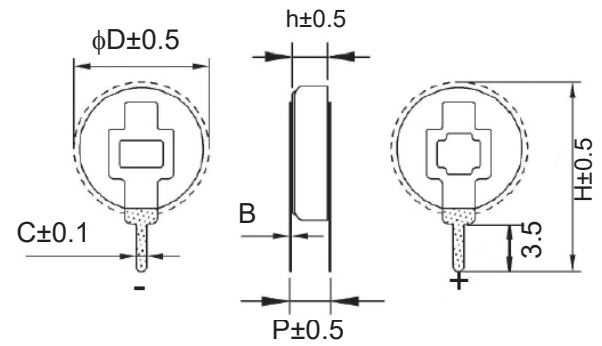
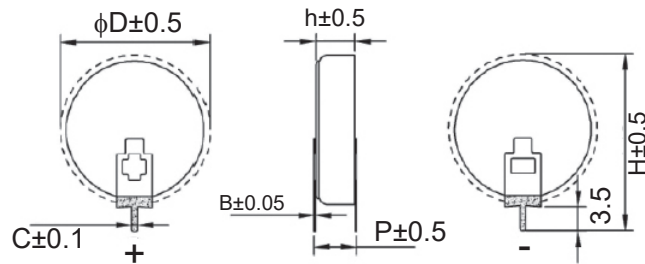


Fig. 6





NDLC ELECTRICAL SPECIFICATIONS

NIC P/N	Capacitance (F)	Voltage (VDC)	Max ESR 1KHz (Ω @25°C)	Nominal Current (A @ 25°C)	LC after 24h (mA@ 25°C)	Max. Stored Energy (mWh)	Energy Density (Wh/kg)
NDLC104Z5.5V13.2X7BF	0.10	5.5	50	0.05	0.003	0.42	0.13
NDLC224Z5.5V13.2X7BF	0.22	5.5	50	0.12	0.003	0.92	0.29
NDLC334Z5.5V13.2X7BF	0.33	5.5	50	0.18	0.004	1.39	0.43
NDLC474Z5.5V13.2X7BF	0.47	5.5	40	0.26	0.004	1.97	0.61
NDLC684Z5.5V21X7.5BF	0.68	5.5	30	0.37	0.006	2.86	0.38
NDLC105Z5.5V21X7.5BF	1.0	5.5	15	0.55	0.006	4.20	0.52
NDLC155Z5.5V21X7.5BF	1.5	5.5	15	0.82	0.010	6.30	0.70
NDLC104Z5.5V12X4.8HF	0.1	5.5	50	0.05	0.003	0.42	0.28
NDLC224Z5.5V12X4.8HF	0.22	5.5	50	0.12	0.003	0.92	0.62
NDLC334Z5.5V12X4.8HF	0.33	5.5	50	0.18	0.004	1.39	0.92
NDLC474Z5.5V12X4.8HF	0.47	5.5	40	0.26	0.004	1.97	1.32
NDLC684Z5.5V19.2X4.8HF	0.68	5.5	30	0.37	0.006	2.86	0.68
NDLC105Z5.5V19.2X4.8HF	1.0	5.5	15	0.55	0.006	4.20	1.00
NDLC155Z5.5V19.2X4.8HF	1.5	5.5	15	0.82	0.010	6.30	1.40
NDLC104Z5.5V12X4.8VF	0.1	5.5	50	0.05	0.003	0.42	0.28
NDLC224Z5.5V12X4.8VF	0.22	5.5	50	0.12	0.003	0.92	0.61
NDLC334Z5.5V12X4.8VF	0.33	5.5	50	0.18	0.004	1.39	0.91
NDLC474Z5.5V12X4.8VF	0.47	5.5	40	0.26	0.004	1.97	1.32
NDLC684Z5.5V19.2X4.8VF	0.68	5.5	30	0.37	0.006	2.86	0.49
NDLC105Z5.5V19.2X4.8VF	1.0	5.5	15	0.55	0.006	4.20	0.72
NDLC155Z5.5V19.2X4.8VF	1.5	5.5	15	0.82	0.010	6.30	1.09

PACKAGING QUANTITY

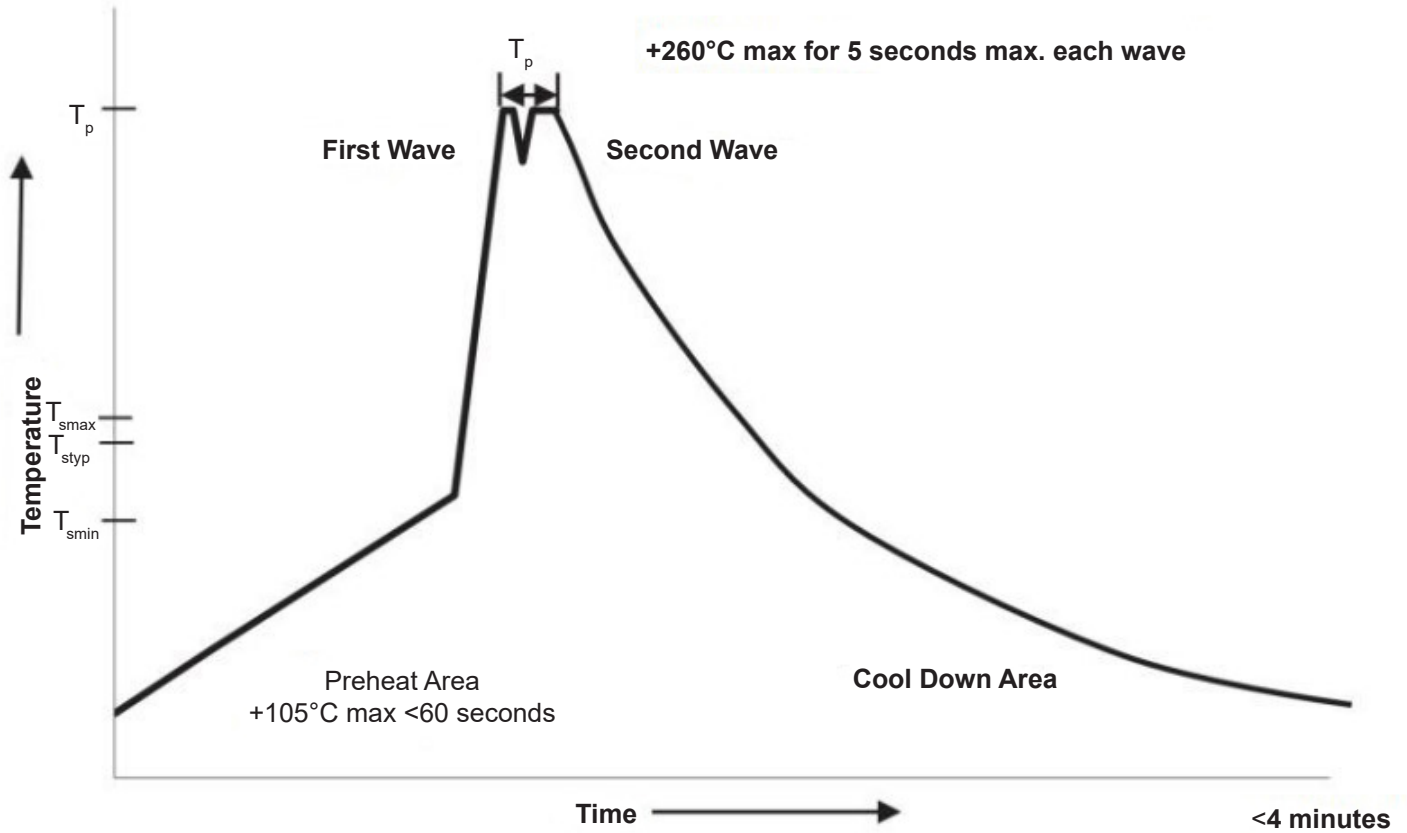
NIC P/N	Quantity per Plastic Tray
NDLC104Z5.5V13.2X7BF	117
NDLC224Z5.5V13.2X7BF	117
NDLC334Z5.5V13.2X7BF	117
NDLC474Z5.5V13.2X7BF	117
NDLC684Z5.5V21X7.5BF	70
NDLC105Z5.5V21X7.5BF	70
NDLC155Z5.5V21X7.5BF	70
NDLC104Z5.5V12X4.8HF	168
NDLC224Z5.5V12X4.8HF	168
NDLC334Z5.5V12X4.8HF	168
NDLC474Z5.5V12X4.8HF	168
NDLC684Z5.5V19.2X4.8HF	70
NDLC105Z5.5V19.2X4.8HF	70
NDLC155Z5.5V19.2X4.8HF	70
NDLC104Z5.5V12X4.8VF	196
NDLC224Z5.5V12X4.8VF	196
NDLC334Z5.5V12X4.8VF	196
NDLC474Z5.5V12X4.8VF	196
NDLC684Z5.5V19.2X4.8VF	70
NDLC105Z5.5V19.2X4.8VF	70
NDLC155Z5.5V19.2X4.8VF	70

Performance Passives By Design

NDLC ENVIRONMENTAL CHARACTERISTICS

ITEM	REQUIREMENT		TEST CONDITION	
Characteristics at Different Temperatures	Step 1	ΔC	Less than or equal to 30% of the initial measured value	Step 1: +25°C ± 2°C Step 2: -25°C ± 2°C Step 3: +70°C ± 2°C Step 4: +25°C ± 2°C
		ESR	Less than or equal to 400% of the initial measured value	
	Step 2	ΔC	Less than or equal to 30% of the initial measured value	
		ESR	Less than or equal to the initial measured value	
	Step 3	ΔC	Within 20% of the rated specification	
		ESR	Within the initial measured value	
Endurance	ΔC	Less than or equal to 30% of the initial measured value	Applied voltage: Rated voltage Temperature: Upper limit temperature Test Duration: 1000 hours	
	ESR	Less than or equal to 4 times the initial measured value		
	Appearance	No leakage or mechanical damage		
Cycle Life	ΔC	Less than or equal to 30% of the initial measured value	At 25°C, charge to the rated voltage with constant current, stand for 5s, discharge to 50% voltage with constant current, stand for 5s, cycle 100000	
	ESR	Less than or equal to 3 times the initial measured value		
Humidity Characteristics	ΔC	Within 30% of the rated specification	Temperature: +40°C ± 2°C Relative humidity: 90~95%RH Test Duration: 240 hours	
	ESR	Less than or equal to 4 times the initial measured value		
	Appearance	No leakage or mechanical damage		
Temperature Cycle	ΔC	Less than or equal to 10% of the initial measured value	Temperature cycle: Lower limit temperature →normal temperature →Upper limit temperature →normal temperature Number of Cycles: 5	
	Appearance	No mechanical damage or leakage		
Low Temperature Storage Characteristics	ΔC	Within 10% of the rated specification	Applied Voltage: 0v Temperature: Low temperature limit Test Duration: 96 hours	
	ESR	Less than or equal to 2 times the initial measured value		
	Appearance	No leakage or mechanical damage		
High Temperature Storage Characteristics	ΔC	Within 10% of the rated specification	Applied Voltage: 0v Temperature: Upper temperature limit Test Duration: 96 hours	
	ESR	Less than or equal to 2 times the initial measured value		
	Appearance	No leakage or mechanical damage		
Self-Discharge (Voltage Holding Characteristics)	Voltage between positive and negative poles $\geq 80\%U_R$		Charging process: Normal temperature, no load, rated voltage charge 8 hours Placement process: Temperature less than or equal to 25 °C, relative humidity less than 60% RH, open 24 hours	
Lead Strength	No damage to the outlet			
Solderability	More than 3/4 of the terminal surface is covered by a tin layer			

FLOW (WAVE) SOLDERING PROFILE



Note: The capacitor cannot be powered on immediately after wave soldering and must be left standing for more than 12 hours before use.