

FEATURES

- STANDARD COIN TYPE CONSTRUCTION
- HIGH TEMPERATURE (+85°C FOR DISCHARGE)
- GREEN MEETING RoHS REQUIREMENTS
- LONG CHARGE-DISCHARGE CYCLE LIFE
- LOW LEAKAGE CURRENT, SUITABLE FOR MAINTAIN RTC

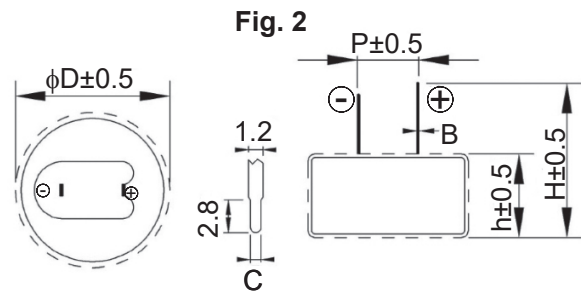
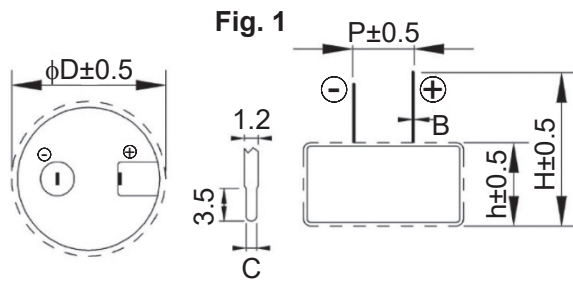
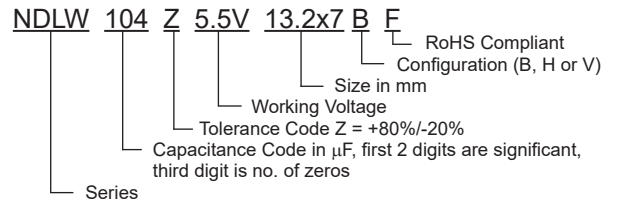
NDLW CHARACTERISTICS

Rated Voltage Rating	3.6 ~ 5.5VDC	
Rated Capacitance Range	0.1 ~ 1.5F (100,000 μ F ~ 1,500,000 μ F)	
Operating Temp. Range	-40°C ~ +85°C	
Capacitance Tolerance	+80/-20% (Z)	
Load Life @ +85°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 ~ +85°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
	+85°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	C \pm 0.10	Fig.
NDLW224Z3.6V13.2X7BF	13.2	7.0	13.0	5.0	0.4 \pm 0.1	0.8	2
NDLW104Z5.5V13.2X7BF	13.2	7.0	13.0	5.0	0.4 \pm 0.1	0.8	2
NDLW224Z5.5V13.2X7BF	13.2	7.0	13.0	5.0	0.4 \pm 0.1	0.8	2
NDLW105Z5.5V21X7.5BF	21.0	7.5	12.5	5.5	0.5 \pm 0.1	0.8	1

PART NUMBER SYSTEM



CASE DIMENSIONS (mm)

NIC P/N	DIMENSIONS (mm)						
	D \pm 0.5	h \pm 0.5	H	P \pm 0.5	B	C \pm 0.10	Fig.
NDLW224Z3.6V12X4.8HF	12.0	4.8	10.0 \pm 1.0	10.0	0.20 \pm 0.05	0.8	3
NDLW105Z3.6V19.2X4.8HF	19.2	4.8	9.5 \pm 1.0	19.5	0.20 \pm 0.05	1.0	4
NDLW155Z3.6V19.2X4.8HF	19.2	4.8	9.5 \pm 1.0	19.5	0.20 \pm 0.05	1.0	4
NDLW104Z5.5V12X4.8HF	12.0	4.8	10.0 \pm 1.0	10.0	0.20 \pm 0.05	0.8	3
NDLW105Z5.5V19.2X4.8HF	19.2	4.8	9.5 \pm 1.0	19.5	0.20 \pm 0.05	1.0	4
NDLW105Z3.6V19.2X4.8VF	19.2	4.8	24 \pm 0.5	5.0	0.20 \pm 0.05	1.0	5

Fig. 3

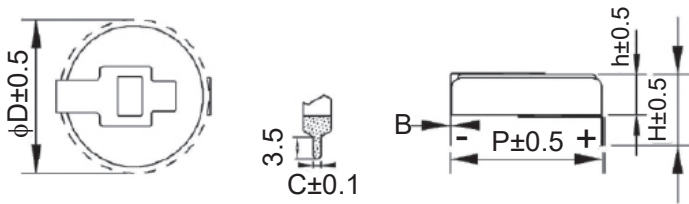


Fig. 4

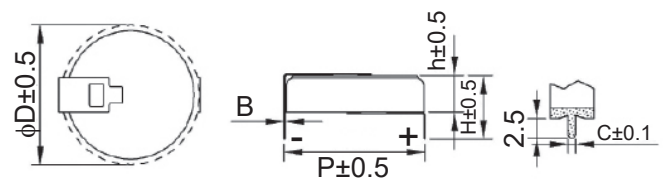
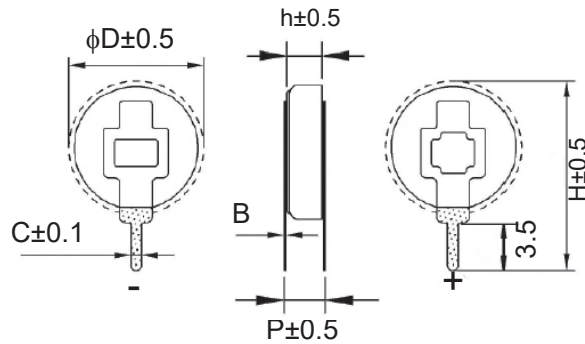


Fig. 5





NDLW 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)
NDLW224Z3.6V13.2X7BF	0.22	3.6	50	0.008	0.003	0.4	0.12
NDLW104Z5.5V13.2X7BF	0.10	5.5	50	0.05	0.003	0.42	0.13
NDLW224Z5.5V13.2X7BF	0.22	5.5	50	0.12	0.003	0.92	0.29
NDLW105Z5.5V21X7.5BF	1.0	5.5	15	0.55	0.006	4.2	0.52
NDLW224Z3.6V12X4.8HF	0.22	3.6	50	0.08	0.003	0.4	0.26
NDLW105Z3.6V19.2X4.8HF	1.0	3.6	15	0.36	0.006	1.8	0.43
NDLW155Z3.6V19.2X4.8HF	1.5	3.6	15	0.54	0.01	2.7	0.6
NDLW104Z5.5V12X4.8HF	0.1	5.5	50	0.05	0.003	0.42	0.28
NDLW105Z5.5V19.2X4.8HF	1.0	5.5	15	0.55	0.006	4.2	1.0
NDLW105Z3.6V19.2X4.8VF	1.0	3.6	15	0.36	0.006	1.8	0.43

PACKAGING QUANTITY

NIC P/N	Quantity per Plastic Tray
NDLW224Z3.6V13.2X7BF	117
NDLW104Z5.5V13.2X7BF	117
NDLW224Z5.5V13.2X7BF	117
NDLW105Z5.5V21X7.5BF	70
NDLW224Z3.6V12X4.8HF	168
NDLW105Z3.6V19.2X4.8HF	70
NDLW155Z3.6V19.2X4.8HF	70
NDLW104Z5.5V12X4.8HF	168
NDLW105Z5.5V19.2X4.8HF	70
NDLW105Z3.6V19.2X4.8VF	70



NDLW ENVIRONMENTAL CHARACTERISTICS

ITEM	REQUIREMENT		TEST CONDITION	
Characteristics at Different Temperatures	Step 1	ΔC	Less than or equal to 30% of the initial value	Step 1: +25°C ± 2°C Step 2: -25°C ± 2°C Step 3: +85°C ± 2°C Step 4: +25°C ± 2°C
		ESR	Less than or equal to 400% of the initial value	
	Step 2	ΔC	Less than or equal to 30% of the initial value	
		ESR	Less than or equal to the initial value	
	Step 3	ΔC	Within 20% of the initial rating	
		ESR	Within the initial measured value	
Endurance	ΔC	Less than or equal to 30% of the initial value	Applied voltage: Rated voltage Temperature: Upper limit temperature Test Duration: 1000 hours	
	ESR	Less than or equal to 4 times the initial value		
	Appearance	No leakage or mechanical damage		
Cycle Life	ΔC	Less than or equal to 30% of the initial 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 value		
Humidity Characteristics	ΔC	Within 30% of the initial rating	Temperature: +40°C ± 2°C Relative humidity: 90~95%RH Test Duration: 240 hours	
	ESR	Less than or equal to 4 times the initial value		
	Appearance	No leakage or mechanical damage		
Temperature Cycle	ΔC	Less than or equal to 10% of the initial 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 initial rating	Applied Voltage: 0v Temperature: Low temperature limit Test Duration: 96 hours	
	ESR	Less than or equal to 2 times the initial value		
	Appearance	No leakage or mechanical damage		
High Temperature Storage Characteristics	ΔC	Within 10% of the initial rating	Applied Voltage: 0v Temperature: Upper temperature limit Test Duration: 96 hours	
	ESR	Less than or equal to 2 times the initial 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 8h Placement process: Temperature less than or equal to 25 °C, relative humidity less than 60% RH, open 24 h	
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

