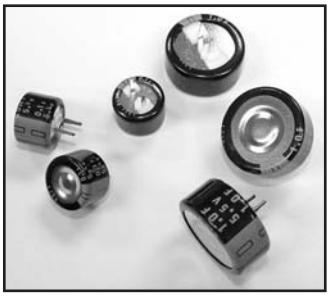
Memory Back-Up Capacitors

NEZHC Series

FEATURES

- DOUBLE LAYER CAPACITOR
- WIDE TEMPERATURE (-25°C~ +85°C)
- LONG LIFE (3,000 HOURS)
- SUITABLE FOR FLOW SOLDERING
- LEAD-FREE FINISH

RoHS Compliant
includes all homogeneous materials



Super Capacitor Application Guide

CHARACTERISTICS

Rated Voltage Range	5.5VDC	
Rated Capacitance Range	0.047F ~ 1.0F (47,000μF ~ 1,000,000μF)	
Operating Temp. Range	-25°C ~ +85°C	
Capacitance Tolerance	+80%/-20% (Z)	
Load Life Test @ 85°C 3,000 hours	Δ Capacitance Change	Less than ±30% of initial measured value
	Maximum ESR	Less than 400% of the specified maximum value
Temperature Characteristics -25°C & +85°C	Δ Capacitance Change	Within ±30% of 20°C value
	Maximum ESR	500% of 20°C value
Shelf Life @ +85°C (1,000 hours)	Δ Capacitance Change	Less than ±30% of initial measured value
	Maximum ESR	Less than 400% of the specified maximum value

STANDARD VALUES AND SPECIFICATIONS

NIC P/N	Case Size (mm)	Capacitance (F)	Voltage (VDC)	Holding Voltage (VDC min.)*	Max. Leakage Current @ minutes (μA)	Max. ESR @ 1KHz (Ω)
NEZHC473Z5.5V13.5X9.5F	13.5X9.5	0.047	5.5	4.0	69 @ 30 minutes	300
NEZHC104Z5.5V13.5X9.5F	13.5X9.5	0.1	5.5	4.0	100 @ 30 minutes	200
NEZHC224Z5.5V13.5X9.5F	13.5X9.5	0.22	5.5	4.0	135 @ 30 minutes	120
NEZHC474Z5.5V21.5X9.5F	21.5X9.5	0.47	5.5	4.0	216 @ 30 minutes	50
NEZHC684Z5.5V21.5X9.5F	21.5X9.5	0.68	5.5	4.0	260 @ 30 minutes	50
NEZHC105Z5.5V21.5X9.5F	21.5X9.5	1.0	5.5	4.0	315 @ 30 minutes	30

***Minimum voltage at 24 hours after charging for 1 hour at 5VDC.**

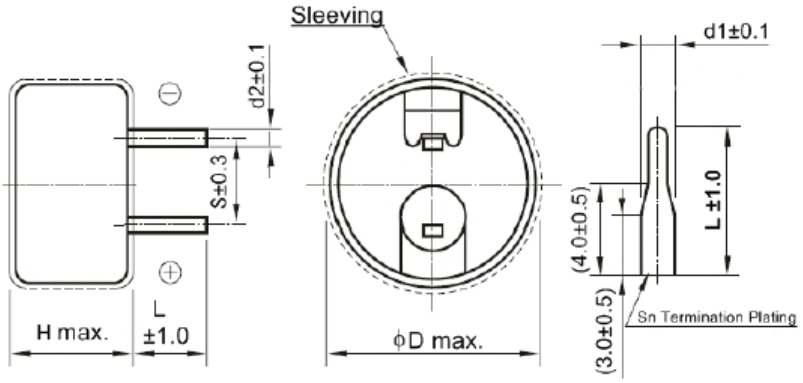
CASE DIMENSIONS (mm)

NIC P/N	DIMENSIONS (mm)					
	D	H	S	L	d_1	d_2
NEZHC473Z5.5V13.5X9.5F	13.5	9.5	5.0	6.0	1.2	0.5
NEZHC104Z5.5V13.5X9.5F	13.5	9.5	5.0	6.0	1.2	0.5
NEZHC224Z5.5V13.5X9.5F	13.5	9.5	5.0	6.0	1.2	0.5
NEZHC474Z5.5V21.5X9.5F	21.5	9.5	5.0	6.0	1.2	0.5
NEZHC684Z5.5V21.5X9.5F	21.5	9.5	5.0	6.0	1.2	0.5
NEZHC105Z5.5V21.5X9.5F	21.5	9.5	5.0	6.0	1.2	0.5

PART NUMBER SYSTEM

NEZHC 104 Z 5.5V 13.5x9.5 F

- NEZHC — Series
- 104 — Capacitance Code in μF, first 2 digits are significant, third digit is no. of zeros
- Z — Tolerance Code Z = +80%/-20%
- 5.5V — Working Voltage
- 13.5x9.5 — Size in mm
- F — RoHS Compliant



PRECAUTIONS

WASHING is NOT RECOMMENDED. Additional guidelines and precautions can be 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**