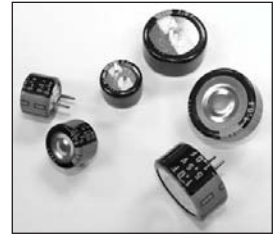


### FEATURES

- DOUBLE LAYER CONSTRUCTION
- LOW ESR
- SUITABLE FOR FLOW SOLDERING
- LEAD-FREE FINISH

**RoHS  
Compliant**  
includes all homogeneous materials

\*See Part Number System for Details



### CHARACTERISTICS

Rated Voltage Range	5.5VDC	
Rated Capacitance Range	0.047F ~ 1.0F (47,000 $\mu$ F ~ 1,000,000 $\mu$ F)	
Operating Temp. Range	-25°C ~ +70°C	
Capacitance Tolerance	+80%/-20% (Z)	
Load Life Test @ 70°C 1,000 hours	$\Delta$ Capacitance Change	Less than $\pm$ 30% of initial measured value
	Maximum ESR	Less than 400% of the specified maximum value
Temperature Characteristics -25°C & +70°C	$\Delta$ Capacitance Change	Within +30% of 20°C value
	Maximum ESR	Less than 5x 20°C value
Shelf Life @ +70°C (1,000 hours)	$\Delta$ Capacitance Change	Less than $\pm$ 30% of initial measured value
	Maximum ESR	Less than 400% of the specified maximum value

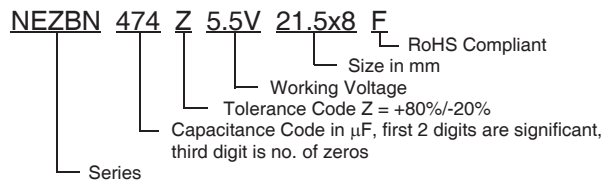
**Super Capacitor  
Application Guide**

### STANDARD VALUES AND SPECIFICATIONS

NIC P/N	Case Size (mm)	Capacitance (F)	Holding Voltage (VDC min.)*	Max. Leakage Current @ minutes ( $\mu$ A)	Max. ESR @ 1KHz ( $\Omega$ )
NEZBN473Z5.5V13.5X7.5F	13.5X7.5	0.047	4.0	69 @ 30 minutes	25
NEZBN104Z5.5V13.5X7.5F	13.5X7.5	0.1	4.0	100 @ 30 minutes	25
NEZBN224Z5.5V13.5X7.5F	13.5X7.5	0.22	4.0	135 @ 30 minutes	25
NEZBN334Z5.5V13.5X7.5F	13.5X7.5	0.33	4.0	182 @ 30 minutes	25
NEZBN474Z5.5V21.5X8F	21.5X8	0.47	4.0	216 @ 30 minutes	20
NEZBN105Z5.5V21.5X8F	21.5X8	1.0	4.0	315 @ 30 minutes	20

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

### PART NUMBER SYSTEM



### PRECAUTIONS

WASHING is NOT RECOMMENDED. Additional guidelines and precautions can be found at [www.niccomp.com/precautions](http://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](mailto:tpmg@niccomp.com)



## CASE DIMENSIONS (mm)

NIC P/N	DIMENSIONS (mm)					
	D max.	H max.	S ± 0.3	L ± 1.0	d <sub>1</sub> ± 0.1	d <sub>2</sub> ± 0.1
NEZBN473Z5.5V13.5X7.5F	13.5	7.5	5.0	6.0	1.2	0.5
NEZBN104Z5.5V13.5X7.5F	13.5	7.5	5.0	6.0	1.2	0.5
NEZBN224Z5.5V13.5X7.5F	13.5	7.5	5.0	6.0	1.2	0.5
NEZBN334Z5.5V13.5X7.5F	13.5	7.5	5.0	6.0	1.2	0.5
NEZBN474Z5.5V21.5X8F	21.5	8.0	5.0	6.0	1.2	0.5
NEZBN105Z5.5V21.5X8F	21.5	8.0	5.0	6.0	1.2	0.5

