Memory Back-Up Capacitors

NEXS Series

FEATURES

- DOUBLE LAYER CONSTRUCTION
- HIGH CURRENT DISCHARGE (UP TO 50mA)
- IDEAL AS MEMORY BACK-UP POWER SUPPLY
- SUITABLE FOR FLOW SOLDERING
- LEAD-FREE FINISH

RoHS Compliant
includes all homogeneous materials

*See Part Number System for Details

Super Capacitor Application Guide

CHARACTERISTICS

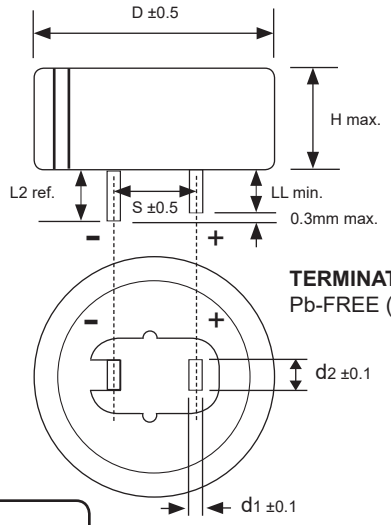
Rated Voltage Range	5.5 ~ 12VDC	
Rated Capacitance Range	0.022F ~ 5.0F (22,000µF ~ 5,000,000µF)	
Operating Temp. Range	-25°C ~ +70°C	
Capacitance Tolerance	+80%/-20% (Z)	
Load Life Test @ 70°C 1,000 hours	Δ Capacitance Change	5.5V Parts - Less than ±15% of initial measured value Others ±30% of initial measured value
	Maximum ESR	Less than 200% of the specified maximum value
	Current at 30 minutes	Less than 200% of the specified maximum value
Temperature Cycling (5 cycles, -25 ~ +70°C	Δ Capacitance Change	Within +80%/-20% of specified value
	Maximum ESR	Less than specified maximum value
	Current at 30 minutes	Less than specified maximum value
Humidity Resistance (240 hours @ 40°C/90% RH)	Δ Capacitance Change	5.5V Parts - Less than ± 10% of initial measured value Others ± 20% of initial measured value
	Maximum ESR	Less than 120% of the specified maximum value
	Current at 30 minutes	Less than 120% of the specified maximum value

STANDARD VALUES AND SPECIFICATIONS

NIC P/N	Capacitance Value (F) Charge	Discharge	Voltage (VDC)	Max. Current @ 30 minutes (mA)	Max. ESR @ 1KHz (Ω)	Typical DCR (Ω)
NEXS223Z5.5V11.5X8.5F	0.022	0.033	5.5	0.033	60	51
NEXS473Z5.5V13X8.5F	0.047	0.072	5.5	0.071	40	18
NEXS104Z5.5V16.5X8.5F	0.10	0.15	5.5	0.15	25	11
NEXS224Z5.5V16.5X13F	0.22	0.33	5.5	0.33	25	9.0
NEXS474Z5.5V21.5X13F	0.47	0.75	5.5	0.71	13	4.2
NEXS474Z11V28.5X25.5F	0.47	0.60	11	1.41	7.0	3.4
NEXS105Z5.5V28.5X14F	1.0	1.3	5.5	1.5	7.0	2.9
NEXS105Z11V28.5X31.5F	1.0	1.3	11	3.0	7.0	5.0
NEXS105Z12V28.5X38F	1.0	1.3	12	3.6	7.5	5.0
NEXS505Z12V44.8X60F	5.0	6.5	12	18.0	4.0	2.0

CASE DIMENSIONS (mm)

NIC P/N	DIMENSIONS (mm)						
	D	H	S	L2 (ref)	LL	d_1	d_2
NEXS223Z5.5V11.5X8.5F	11.5	8.5	5.08	4.1±1.0	2.7	0.4	1.2
NEXS473Z5.5V13X8.5F	13.0	8.5	5.08	3.4±1.0	2.2	0.4	1.2
NEXS104Z5.5V16.5X8.5F	16.5	8.5	5.08	4.1±1.0	2.7	0.4	1.2
NEXS224Z5.5V16.5X13F	16.5	13.0	5.08	4.1±1.0	2.7	0.4	1.2
NEXS474ZZ5.5V21.5X13F	21.5	13.0	7.62	4.5±1.5	3.0	0.6	1.2
NEXS474Z11V28.5X25.5F	28.5	25.5	10.16	8.0±1.5	6.1	0.6	1.4
NEXS105Z5.5V28.5X14F	28.5	14.0	10.16	8.0±1.5	6.1	0.6	1.4
NEXS105Z11V28.5X31.5F	28.5	31.5	10.16	8.0±1.5	6.1	0.6	1.4
NEXS105Z12V28.5X38F	28.5	38.0	10.16	8.0±1.5	6.1	0.6	1.4
NEXS505Z12V44.8X60F	44.8	60.0	20.00	7.5±2.0	9.5	1.0	1.4



TERMINATION FINISH:
Pb-FREE (99%Sn/1%Cu)

PRECAUTIONS

Please review the notes on correct use, safety and precautions found at
https://www.niccomp.com/resource/files/double/Double_Layer_Capacitor_Guide_0810-RevBrA7.pdf
If in doubt or uncertainty, please review your specific application - process details with NIC's technical support personnel: **tpmg@niccomp.com**