Hybrid Aluminum Electrolytic Capacitors

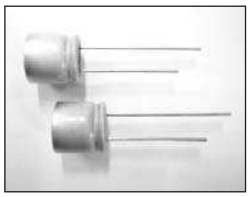
NSPRH Series

HIGH TEMPERATURE, EXTENDED LOAD LIFE, RADIAL LEADS, POLARIZED

FEATURES

- IMPROVED ENDURANCE AT HIGH TEMPERATURE (up to 10,000HRS @ 105°C)
- HIGH RIPPLE CURRENT RATINGS
- REDUCED SIZES

NEW
Long Life &
High Ripple Current



CHARACTERISTICS

Rated Voltage Range		16 ~ 100VDC							
Capacitance Range		10 ~ 560µF							
Operating Temperature Range		-55°C ~ +105°C							
Capacitance Tolerance		±20% (M)							
Maximum Leakage Current After 2 minutes		0.05CV or 100µA whichever is greater							
Max. Tan δ at 120Hz/20°C	W.V. (Vdc)	16	25	35	40	50	63	80	100
	S.V. (Vdc)	20	32	44	50	63	79	100	125
	Tan δ	0.16							
Low Temperature Stability Impedance Ratio @ 120Hz	Z-55°C/Z+20°C	0.75 ~ 1.25							
	Z+105°C/Z+20°C	0.75 ~ 1.25							
Load Life Test @ 105°C	16V	φ6.3: 3,000 hours, φ8mm ~ 10mm: 7,000 hours							
	25V ~ 100V	φ6.3: 5,000 hours, φ8mm ~ 10mm: 10,000 hours							
	Δ Capacitance	Within ±30% of initial measured value							
	Δ Tan δ	Less than 200% of specified value							
	Δ LC	Less than specified value							
	Δ ESR	Less than 200% of specified value							

PART NUMBER SYSTEM

NSPRH 101 M 35V 8X9.5 F

- F — RoHS Compliant
- 8X9.5 — Case Size (DφxL)
- 35V — Working Voltage (Vdc)
- M — Tolerance Code (M=20%)
- 101 — Capacitance Code: First 2 characters significant, third character is multiplier
- NSPRH — Series

PRECAUTIONS

Please review the notes on correct use, safety and precautions found on **pages T10** & **T11** of NIC's **Electrolytic Capacitor catalog**.
Also 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**

STANDARD PRODUCT AND CASE SIZE TABLE DϕxL (mm)

Part Number	Cap. (µF)	W.V. (Vdc)	Dissipation Factor +20°C/120Hz	Leakage Current (µA) after 2 minutes	Ripple Current Rating (mA) +105°C/100KHz	Max. ESR (mΩ) +20°C/100KHz	Load Life Hours @+105°C
NSPRH121M16V6.3X7.2F	120	16	0.16	100.0	1500	40	3,000
NSPRH271M16V8x9.5F	270		0.16	216.0	1940	26	7,000
NSPRH471M16V10X9.5F	470		0.16	376.0	2590	21	7,000
NSPRH561M16V10X11.5F	560		0.16	448.0	3000	15	7,000
NSPRH680M25V6.3X7.2F	68	25	0.16	100.0	1400	45	5,000
NSPRH151M25V8x9.5F	150		0.16	187.5	1900	27	10,000
NSPRH271M25V10X9.5F	270		0.16	337.5	2530	22	10,000
NSPRH331M25V10X11.5F	330		0.16	412.5	2900	16	10,000
NSPRH470M35V6.3X7.2F	47	35	0.16	100.0	1300	60	5,000
NSPRH101M35V8X9.5F	100		0.16	175.0	1800	30	10,000
NSPRH151M35V10x9.5F	150		0.16	262.5	2470	23	10,000
NSPRH221M35V10X11.5F	220		0.16	385.0	2830	17	10,000
NSPRH270M40V6.3X7.2F	27	40	0.16	100.0	1250	70	5,000
NSPRH560M40V8X9.5F	56		0.16	112.0	1750	32	10,000
NSPRH101M40V10X9.5F	100		0.16	200.0	2400	24	10,000
NSPRH121M40V10X11.5F	120		0.16	240.0	2750	18	10,000
NSPRH150M50V6.3X7.2F	15	50	0.16	100.0	1200	80	5,000
NSPRH330M50V8X9.5F	33		0.16	100.0	1670	35	10,000
NSPRH560M50V10X9.5F	56		0.16	140.0	2320	25	10,000
NSPRH820M50V10X11.5F	82		0.16	205.0	2650	19	10,000
NSPRH100M63V6.3X7.2F	10	63	0.16	100.0	1060	100	5,000
NSPRH220M63V8X9.5F	22		0.16	100.0	1560	40	10,000
NSPRH330M63V8X9.5F	33		0.16	104.0	1560	40	10,000
NSPRH330M63V10X9.5F	33		0.16	104.0	2100	30	10,000
NSPRH470M63V10X9.5F	47		0.16	148.1	2100	30	10,000
NSPRH560M63V10X11.5F	56		0.16	176.4	2400	22	10,000
NSPRH120M80V10X9.5F	12	80	0.16	100.0	1600	70	10,000
NSPRH150M80V10X9.5F	15		0.16	100.0	1600	70	10,000
NSPRH180M80V10X11.5F	18		0.16	100.0	1830	50	10,000
NSPRH100M100V10X9.5F	10	100	0.16	100.0	1450	80	10,000
NSPRH120M100V10X9.5F	12		0.16	100.0	1450	80	10,000
NSPRH150M100V10X11.5F	15		0.16	100.0	1660	60	10,000

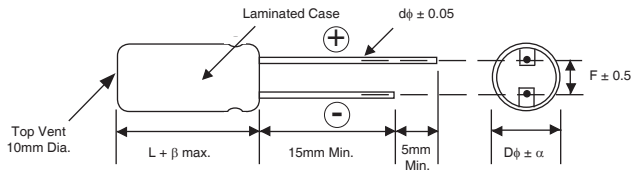
RIPPLE CURRENT FREQUENCY CORRECTION FACTORS

Frequency (Hz)	100	1K	10K	≥100K
10µF ~ 33µF	0.05	0.32	0.67	1.00
47µF ~ 560µF	0.10	0.35	0.70	1.00

LEAD SPACING AND DIAMETER (mm)

Case Dia. (Dϕ)	6.3	8	10
Lead Dia. (dϕ)	0.45	0.6	0.7
Lead Spacing (F)	2.5	3.5	5.0
Dim. α	0.5		
Dim. B	1.5		

DIMENSIONS (mm)



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