

# Hybrid Aluminum Electrolytic Capacitors

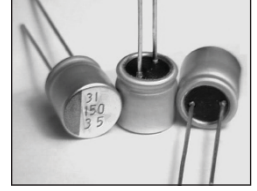
NSPRT Series

HIGH TEMPERATURE, EXTENDED LOAD LIFE, RADIAL LEADS, POLARIZED

## FEATURES

- LONG ENDURANCE AT HIGH TEMPERATURE (up to 3,000HRS @ 125°C)
- REDUCED SIZES

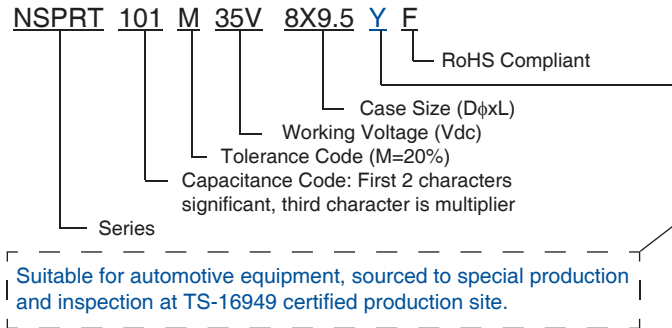
*\* NEW \**  
*High Temperature*  
*+125°C*



## CHARACTERISTICS

Rated Voltage Range		16 ~ 100VDC							
Capacitance Range		10 ~ 560μF							
Operating Temperature Range		-55°C ~ +125°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	1.0 ~ 2.5							
	Z+125°C/Z+20°C	0.6 ~ 1.0							
Load Life Test @ 135°C	Voltage	16V				25V ~ 100V			
	Duration	φD 6.3mm = 1,500 hours φD ≥ 8mm = 2,500 hours				φD 6.3mm = 2,000 hours φD ≥ 8mm = 3,000 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



## 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](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)



### STANDARD PRODUCT AND CASE SIZE TABLE D $\phi$ xL (mm)

Part Number	Cap. ( $\mu$ F)	W.V. (Vdc)	Dissipation Factor +20°C/120Hz	Leakage Current ( $\mu$ A) after 2 minutes	Ripple Current Rating (mA) +125°C/100KHz	Max. ESR (m $\Omega$ ) +20°C/100KHz	Load Life Hours @+125°C
NSPRT121M16V6.3X7.2YF	120	16	0.16	100.0	1160	40	1,500
NSPRT271M16V8X9.5YF	270		0.16	216.0	1540	26	2,500
NSPRT471M16V10X9.5YF	470		0.16	376.0	2010	21	2,500
NSPRT561M16V10X11.5YF	560	25	0.16	448.0	2320	15	2,500
NSPRT680M25V6.3X7.2YF	68		0.16	100.0	980	45	2,000
NSPRT151M25V8X9.5YF	150		0.16	187.5	1330	27	3,000
NSPRT271M25V10X9.5YF	270	35	0.16	337.5	1520	22	3,000
NSPRT331M25V10X11.5YF	330		0.16	412.5	1740	16	3,000
NSPRT470M35V6.3X7.2YF	47		0.16	100.0	910	60	2,000
NSPRT101M35V8X9.5YF	100	40	0.16	175.0	1260	30	3,000
NSPRT151M35V10X9.5YF	150		0.16	262.5	1480	23	3,000
NSPRT221M35V10X11.5YF	220		0.16	385.0	1700	17	3,000
NSPRT270M40V6.3X7.2YF	27	50	0.16	100.0	870	70	2,000
NSPRT560M40V8X9.5YF	56		0.16	112.0	1220	32	3,000
NSPRT101M40V10X9.5YF	100		0.16	200.0	1440	24	3,000
NSPRT121M40V10X11.5YF	120	63	0.16	240.0	1650	18	3,000
NSPRT150M50V6.3X7.2YF	15		0.16	100.0	840	80	2,000
NSPRT330M50V8X9.5YF	33		0.16	100.0	1170	35	3,000
NSPRT560M50V10X9.5YF	56	80	0.16	140.0	1390	25	3,000
NSPRT820M50V10X11.5YF	82		0.16	205.0	1590	19	3,000
NSPRT100M63V6.3X7.2YF	10		0.16	100.0	740	100	2,000
NSPRT220M63V8X9.5YF	22	100	0.16	100.0	1090	40	3,000
NSPRT330M63V8X9.5YF	33		0.16	104.0	1090	40	3,000
NSPRT330M63V10X9.5YF	33		0.16	104.0	1260	30	3,000
NSPRT470M63V10X9.5YF	47	80	0.16	148.1	1260	30	3,000
NSPRT560M63V10X11.5YF	56		0.16	176.4	1440	22	3,000
NSPRT120M80V10X9.5YF	12		0.16	100.0	900	70	3,000
NSPRT150M80V10X9.5YF	15	100	0.16	100.0	900	70	3,000
NSPRT180M80V10X11.5YF	18		0.16	100.0	1100	50	3,000
NSPRT100M100V10X9.5YF	10		0.16	100.0	870	80	3,000
NSPRT120M100V10X9.5YF	12	100	0.16	100.0	870	80	3,000
NSPRT150M100V10X11.5YF	15		0.16	100.0	1000	60	3,000

### RIPPLE CURRENT FREQUENCY CORRECTION FACTORS

Frequency (Hz)	100	1K	10K	$\geq$ 100K
10 $\mu$ F ~ 33 $\mu$ F	0.05	0.32	0.67	1.00
47 $\mu$ F ~ 560 $\mu$ F	0.10	0.35	0.70	1.00

### LEAD SPACING AND DIAMETER (mm)

Case Dia. (D $\phi$ )	6.3	8	10
Lead Dia. (d $\phi$ )	0.45	0.6	0.7
Lead Spacing (F)	0.25	3.5	5.0
Dim. $\alpha$	0.5		
Dim. B	1.5		

