

Hybrid Aluminum Electrolytic Capacitors

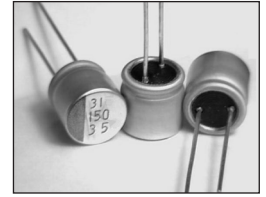
NSPRY Series

VERY HIGH TEMPERATURE, EXTENDED LOAD LIFE, RADIAL LEADS, POLARIZED

FEATURES

- LONG ENDURANCE AT HIGH TEMPERATURE (up to 2,000HRS @ 135°C)
- REDUCED SIZES
- MEETS THE REQUIREMENTS OF AEC-Q200*
- *Contact NIC for supporting test data

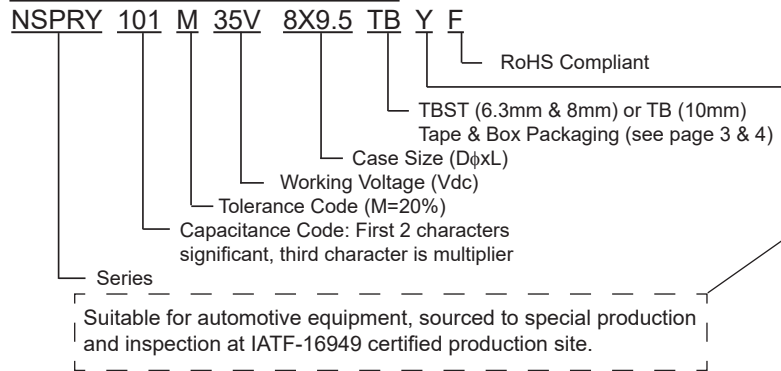
** NEW **
**High Temperature
+135°C**



CHARACTERISTICS

Rated Voltage Range		25 ~ 63VDC				
Capacitance Range		10 ~ 330μF				
Operating Temperature Range		-55°C ~ +135°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)	25	35	40	50	63
	S.V. (Vdc)	32	44	50	63	79
	Tan δ	0.16				
Low Temperature Stability Impedance Ratio @ 120Hz	Z-55°C/Z+20°C	1.0 ~ 2.5				
	Z+135°C/Z+20°C	0.6 ~ 1.0				
Load Life Test @ 135°C	Duration	φD 6.3mm = 1,000 hours, φD ≥ 8mm = 2,000 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 at <https://www.niccomp.com/resource/files/aluminum/AlumApplInfoCautions.pdf>
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)

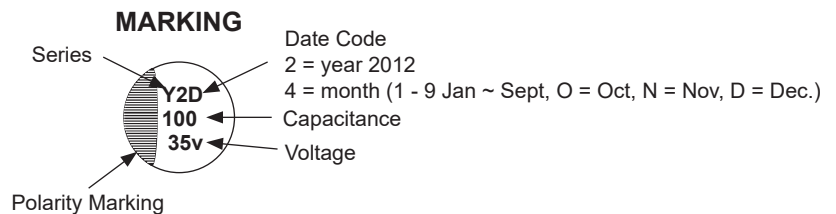
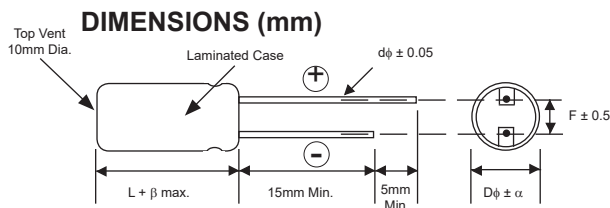
Part Number	Cap. (μF)	W.V. (Vdc)	Dissipation Factor +20°C/120Hz	Leakage Current (μA) after 2 minutes	Ripple Current Rating (mA) +135°C/100KHz	Max. ESR (mΩ) +20°C/100KHz	Load Life Hours @+135°C
NSPRY680M25V6.3X7.2YF	68	25	0.16	100.0	780	45	1000
NSPRY151M25V8X9.5YF	150		0.16	187.5	1060	27	2000
NSPRY271M25V10X9.5YF	270		0.16	337.5	1220	22	2000
NSPRY331M25V10X9.5YF	330		0.16	412.5	1390	16	2000
NSPRY470M35V6.3X7.2YF	47	35	0.16	100.0	730	60	1000
NSPRY101M35V8X9.5YF	100		0.16	175.0	1010	30	2000
NSPRY151M35V10X9.5YF	150		0.16	262.5	1180	23	2000
NSPRY221M35V10X11.5YF	220		0.16	385.0	1360	17	2000
NSPRY270M40V6.3X7.2YF	27	40	0.16	100.0	700	70	1000
NSPRY560M40V8X9.5YF	56		0.16	112.0	980	32	2000
NSPRY101M40V10X9.5YF	100		0.16	200.0	1150	24	2000
NSPRY121M40V10X11.5YF	120		0.16	240.0	1320	18	2000
NSPRY150M50V6.3X7.2YF	15	50	0.16	100.0	670	80	1000
NSPRY330M50V8X9.5YF	33		0.16	100.0	940	35	2000
NSPRY560M50V10X9.5YF	56		0.16	140.0	1110	25	2000
NSPRY820M50V10X11.5YF	82		0.16	205.0	1270	19	2000
NSPRY100M63V6.3X7.2YF	10	63	0.16	100.0	590	100	1000
NSPRY220M63V8X9.5YF	22		0.16	100.0	870	40	2000
NSPRY330M63V8X9.5YF	33		0.16	104.0	870	40	2000
NSPRY330M63V10X9.5YF	33		0.16	104.0	1010	30	2000
NSPRY470M63V10X9.5YF	47		0.16	148.1	1010	30	2000
NSPRY560M63V10X11.5YF	56		0.16	176.4	1150	22	2000

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)	0.25	3.5	5.0
Dim. α		0.5	
Dim. B		1.5	

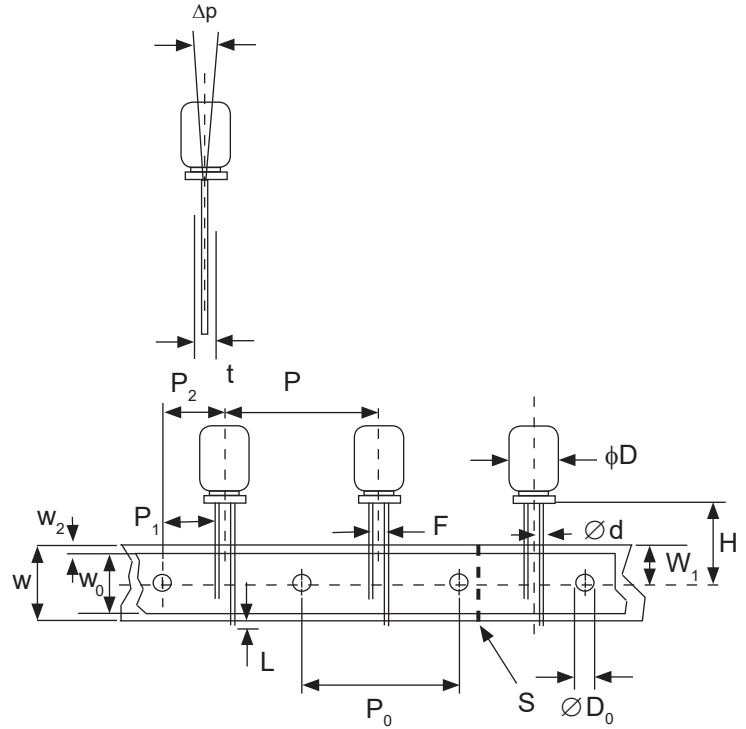


RADIAL TAPING SPECIFICATIONS FOR 6.3mm and 8.0mm DIAMETER NSRPH PARTS PART NUMBER SUFFIX "TBST"

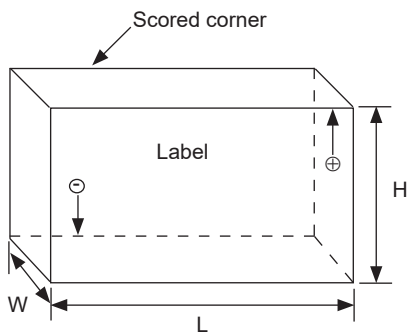
TAPING DIMENSIONS (mm)

Case Size	6.3x7.2	8x9.5
$d\phi \pm 0.05$	0.45	0.60
$H \pm 0.75$	17.5	20.0
$F + 0.8/-0.2$	2.5	3.5
$P \pm 1.0$	12.7	12.7
$P_0 \pm 0.2$	12.7	12.7
$P_1 \pm 0.5$	5.1	4.6
$P_2 \pm 1.0$	6.35	6.35
$W \pm 0.5$	18.0	18.0
W_0 min.	11.5	11.5
$W_1 \pm 0.5$	9.0	9.0
W_2	0 ~ 2.5	0 ~ 2.5
L max.	1.0	1.0
$D_0 \phi \pm 0.2$	4.0	4.0
Δp max.	1.0 (off alignment of body)	1.0 (off alignment of body)
$t \pm 0.2$	0.7 (not including lead)	0.7 (not including lead)

NOTE: Anode (+) lead feeds off first.



Ammo Box Dimensions (mm)



Ammo Box (Tape & Box) TBST

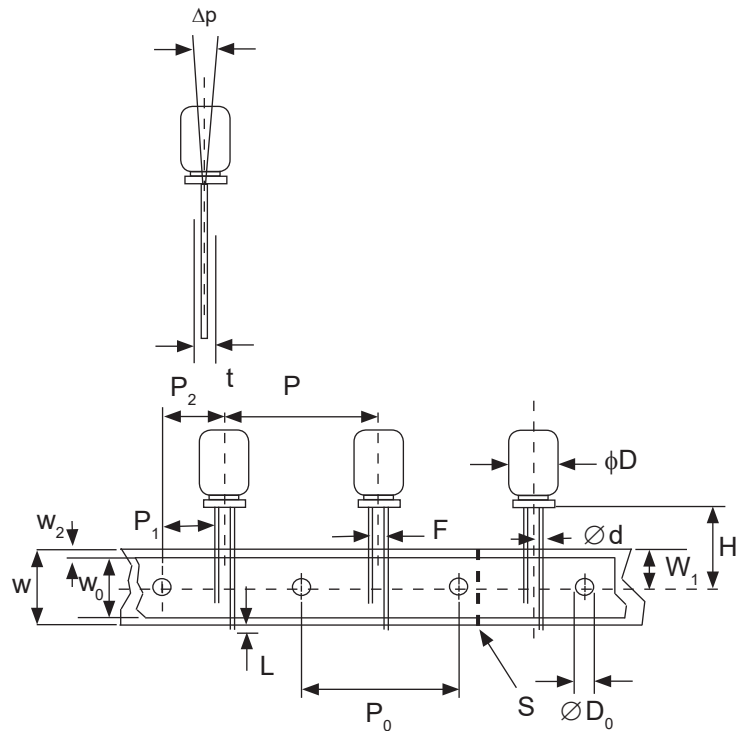
Size of box and component quantity

Case Size	Qty per Box (pcs)	Dim. L	Dim. H	Dim. W
$\phi 6.3 \times 7.2$	2,000	331	280	43
$\phi 8 \times 9.5$	1,000	331	240	51

RADIAL TAPING SPECIFICATIONS FOR 10X9.5mm DIAMETER NSRPH PARTS PART NUMBER SUFFIX "TB"

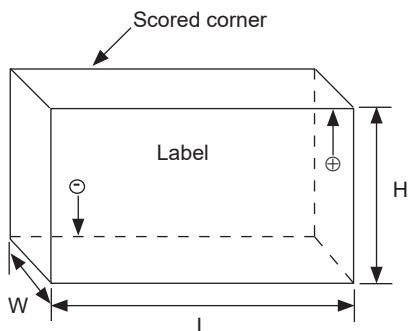
TAPING DIMENSIONS (mm)

Case Dia. ($D\phi$)	10.0
$d\phi \pm 0.05$	0.7
$H \pm 1.5/-0.5$	18.5
$F \pm 0.5$	5.0
$P \pm 1.0$	12.7
$P_0 \pm 0.2$	12.7
$P_1 \pm 0.5$	3.85
$P_2 \pm 1.0$	6.35
$W \pm 0.5$	18.0
W_0 min.	11.5
$W_1 \pm 0.5$	9.0
W_2	0 ~ 2.5
L max.	1.0
$D_0 \phi \pm 0.2$	4.0
Δp max.	1.0 (off alignment of body)
$t \pm 0.2$	0.7 (not including lead)



NOTE: Anode (+) lead feeds off first.

Ammo Box Dimensions (mm)



Ammo Box (Tape & Box) TB

Size of box and component quantity

Case Size	Q'ty per Box (pcs)	Dim. L	Dim. H	Dim. W
$\phi 10 \times 9.5, 11.5$	500	331	180	50