

Miniature Aluminum Electrolytic Capacitors

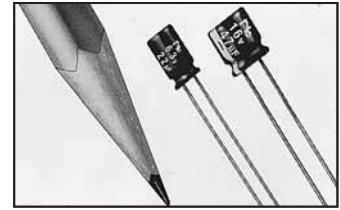
NSRZ Series

LOW IMPEDANCE, SUBMINIATURE, RADIAL LEADS, POLARIZED ALUMINUM ELECTROLYTIC CAPACITORS

FEATURES

- VERY LOW IMPEDANCE AT HIGH FREQ AND HIGH RIPPLE CURRENT
- 5mm HEIGHT, LOW PROFILE
- SUITABLE FOR DC-DC CONVERTER OR DC-AC INVERTER

RoHS Compliant
includes all homogeneous materials



CHARACTERISTICS

Rated Voltage Range	6.3 ~ 35Vdc					
Capacitance Range	33 ~ 180 μ F					
Operating Temperature Range	-55 ~ +105°C					
Capacitance Tolerance	\pm 20%(M)					
Max. Leakage Current After 1 minutes At +20°C	0.01CV or 3 μ A, whichever is greater					
Max. Tan δ @ 120Hz/+20°C	W.V. (Vdc)	6.3	10	16	25	35
	S.V. (Vdc)	8	13	20	32	44
	Tan δ	0.24	0.20	0.16	0.14	0.12
Low Temperature Stability Impedance Ratio @ 120Hz	Z-40°C/Z+20°C	3	2	2	2	2
	Z-55°C/Z+20°C	5	4	4	3	3
Load Life Test at Rated W.V. +105°C 1,000 Hours	Capacitance Change	Within \pm 25% of initial measured value				
	Tan δ	Less than 200% of specified maximum value				
	Leakage Current	Less than specified maximum value				

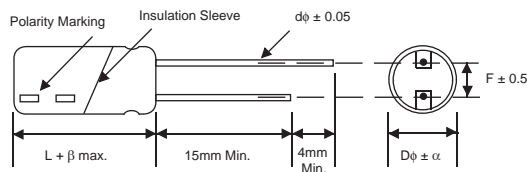
*See Part Number System for Details

STANDARD PRODUCTS, CASE SIZES AND SPECIFICATIONS D ϕ x L (mm)

Part Number	Cap (μ F)	W.V (Vdc)	Max. Z (Ω) 100KHz & 20°C	Max. Ripple Current (mA) 100KHz & 105°C	Load Life Hours @ +105°C
NSRZ101M6.3V6.3x5F	100	6.3	0.44	230	1000
NSRZ181M6.3V6.3x5F	180		0.47	230	1000
NSRZ680M10V6.3x5F	68	10	0.44	230	1000
NSRZ121M10V6.3x5F	120		0.47	230	1000
NSRZ470M16V6.3x5F	47	16	0.44	230	1000
NSRZ680M16V6.3x5F	68		0.44	230	1000
NSRZ121M16V6.3x5F	120		0.47	230	1000
NSRZ330M25V6.3x5F	33	25	0.44	230	1000
NSRZ470M25V6.3x5F	47		0.47	230	1000
NSRZ330M35V6.3x5F	33		0.44	230	1000

LEAD SPACING AND DIAMETER (mm)

Case Dia. (D ϕ)	6.3
Lead Dia. (d ϕ)	0.45
Lead Spacing (F)	2.5
Dim. α	0.5
Dim. β	1.0



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

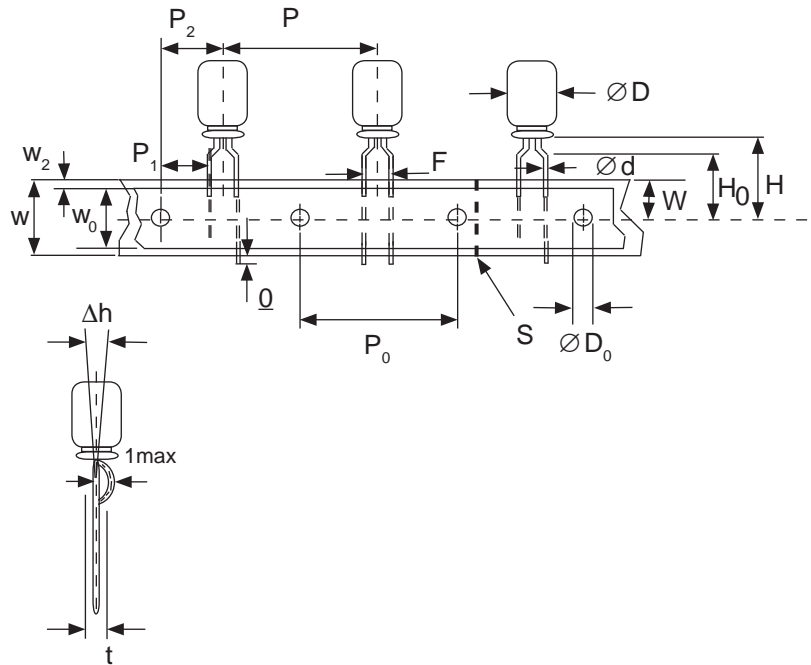


Miniature Aluminum Electrolytic Capacitors Taping Specifications

STANDARD RADIAL TAPING (5mm LEAD SPACING, FORMED LEADS) TR, TB

Taping Dimensions (mm)

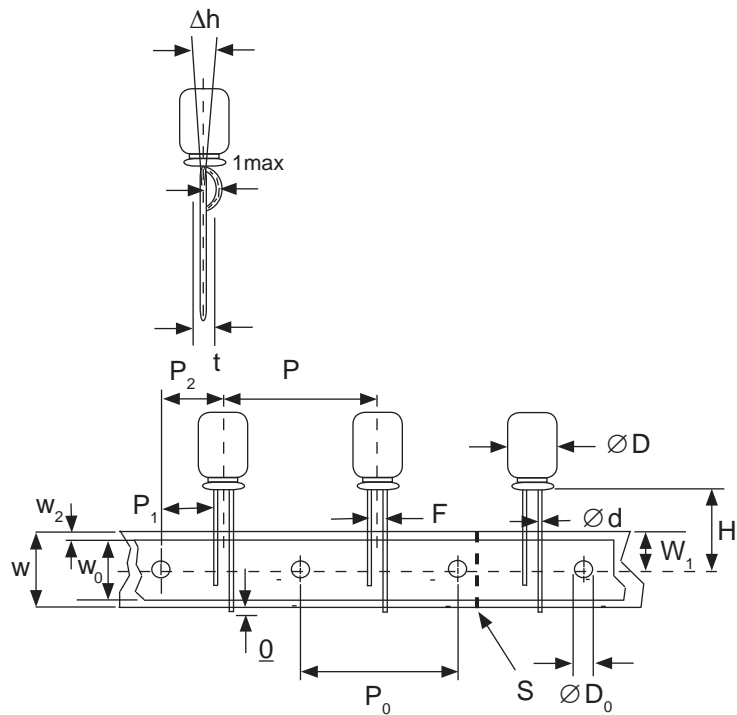
Case Dia. (D ϕ)	4	5	6.3	8
Case Size	4x5 4x7	5x5 5x7	5x11	6.3x5 6.3x7 6.3x11 8x11.5
d ϕ \pm 0.05	0.45	0.45	0.5	0.45
H \pm 0.75	17.5	17.5	18.5	17.5
F +0.8 ~ -0.2	5.0 -0.2 ~ +0.8			
P	12.7 \pm 1.0			
P ₀	12.7 \pm 0.2			
P ₁	3.85 \pm 0.5 (at end of tape)			
P ₂	6.35 \pm 1.0			
W	18.0 \pm 0.5			
W ₀	11.5 min.			
W ₁	9.0 \pm 0.5			
W ₂	0 ~ 2.5			
H ₀	16.0 \pm 0.5			
l	1.0 max.			
D ₀ ϕ	4.0 \pm 0.2			
Δ h	0 \pm 1.0 (at top of can)			
t	0.7 \pm 0.2 (not including lead)			



STANDARD RADIAL TAPING (5mm LEAD SPACING, STRAIGHT LEADS) TR, TB

Taping Dimensions (mm)

Case Dia. (D ϕ)	10	12.5
Case Size	All	All
d ϕ \pm 0.05	0.6	0.6
H \pm 0.75	19.0	19.0
F +0.8 ~ -0.2	5.0	5.0
P \pm 1.0	25.4*	
P ₀	12.7 \pm 0.2	
P ₁	3.85	
P ₂	6.35 \pm 1.0	
W	18.0 \pm 0.5	
W ₀	11.5 min	
W ₁	9.0 \pm 0.5	
W ₂	0 ~ 2.5	
H ₀	16.0 \pm 0.5	
l	1.0 max.	
D ₀ ϕ	4.0 \pm 0.2	
Δ h	0 \pm 1.0 (at top of can)	
t	0.7 \pm 0.2 (not including lead)	
*Optional Taping Specifications		
10mm diameter available with P dim. = 12.7mm (P/N Suffix: TB12.7MMP)		
12.5mm diameter available with P dim. = 15mm, P ₁ = 5.0mm, P ₀ = 15.0mm & P ₂ = 7.5mm (P/N Suffix: TB15MMP)		



NOTE: ANODE (+) LEAD FEEDS OFF FIRST. FOR OPTION OF NEGATIVE (-) LEAD FIRST, SPECIFY "TRN" OR "TBN".

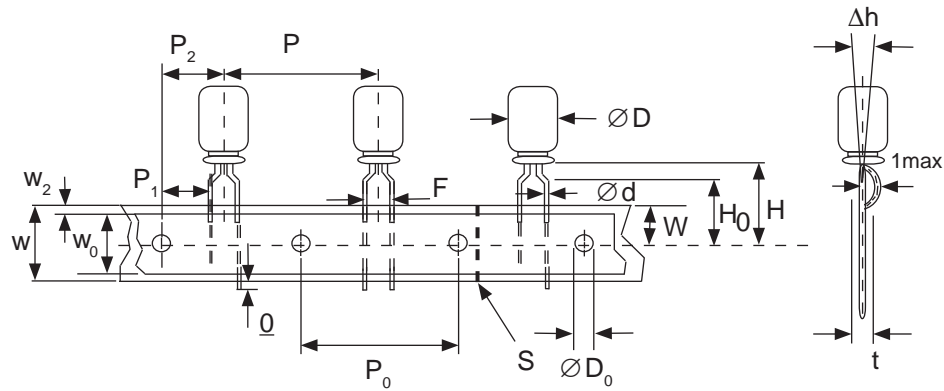


Miniature Aluminum Electrolytic Capacitors Taping Specifications

SPECIAL RADIAL TAPING (2.5mm LEAD SPACING, FORMED LEADS) TRF1, TBF1

Taping Dimensions (mm)

Case Dia. (D ϕ)	4		5	
Case Size Dim.	4x5 4x7	5x5 5x7	5x11	
d ϕ \pm 0.05	0.45	0.45	0.5	
H \pm 0.75	17.5	17.5	18.5	
H ₀ \pm 0.5	16.0	-	-	
F	2.5 -0.2 ~ +0.8			
P	12.7 \pm 1.0			
P ₀	12.7 \pm 0.2			
P ₁	5.1 \pm 0.5			
P ₂	6.35 \pm 1.0			
W	18.0 \pm 0.5			
W ₀	11.5 min.			
W ₁	9.0 \pm 0.5			
W ₂	0 ~ 1.5			
l	1.0 max.			
D ₀ ϕ	4.0 \pm 0.2			
Δ h	0 \pm 1.0			
t	0.7 \pm 0.2			

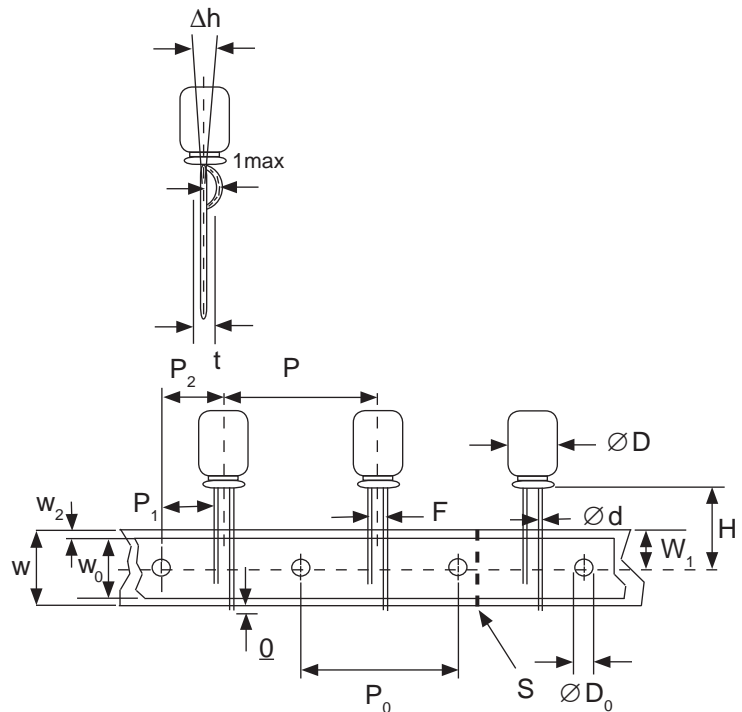


SPECIAL STRAIGHT LEAD TAPING TRST, TBST

Taping Dimensions (mm)

Case Dia. (D ϕ)	4			5			6.3		8	
Case Size Dim.	4x5 4x7	5x5 5x7	5x11		6.3x5 6.3x7	6.3x11	8x11.5			
d ϕ \pm 0.05	0.45	0.45	0.5		0.45	0.5	0.6			
H \pm 0.75	17.5	17.5	18.5		17.5	18.5	20.0			
F +0.8 ~ -0.2	2.0*	2.0	2.0		2.5	2.5	3.5			
P \pm 1.0	12.7 \pm 0.2									
P ₀	12.7 \pm 0.2									
P ₁	5.1	5.1	5.1	5.1	5.1	5.1	4.6			
P ₂	6.35 \pm 1.0									
W	18.0 \pm 0.5									
W ₀	11.5 min.									
W ₁	9.0 \pm 0.5									
W ₂	0 ~ 2.5									
H ₀	16.0 \pm 0.5									
l	1.0 max.									
D ₀ ϕ	4.0 \pm 0.2									
Δ h	0 \pm 1.0 (at top of can)									
t	0.7 \pm 0.2 (not including lead)									

* Parts with 4mm diameter are taped with a slight flare in the lead and a 2.0mm lead-space.

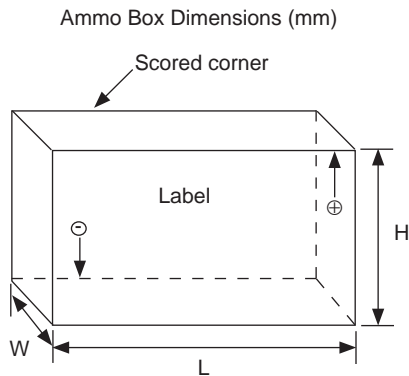


Miniature Aluminum Electrolytic Capacitors Taping Specifications

RADIAL TAPED PACKAGING

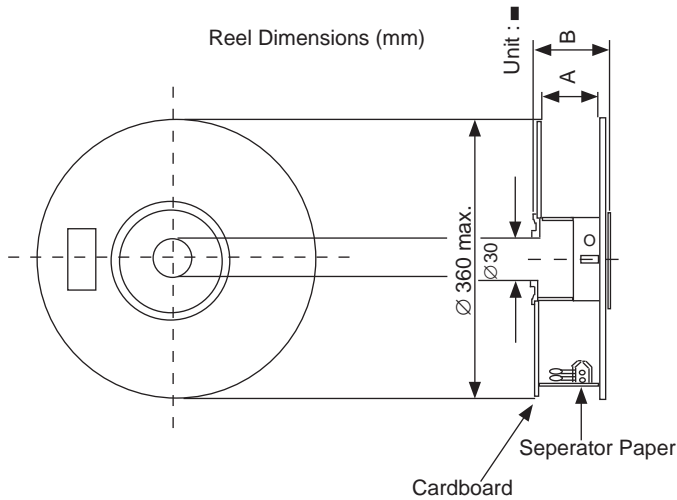
Ammo Box (Tape & Box) TB, TBF, TBST

Size of box and component quantity



Case Dia (D ϕ) or Case Size	Q'ty per Box (pcs)	Dim. L	Dim. H	Dim. W
4x5, 4x7	2,000	331	175	43
5x5, 5x7	2,000	331	220	43
5x11	2,000	340	255	55
6.3x5, 6.3x7	2,000	331	280	43
6.3x11	2,000	331	280	48
8x11.5, 8x12.5	1,000	335	235	53
10x12.5*	500	335	190	53
10x16*	500	335	300	53
10x20*	500	335	300	55
12.x20*	500	335	300	55
12.5x25*	500	335	300	61

*Special Taping Consult Factory For Availability



Reel Packages (Tape & Reel) TR, TRF1, TRST

Size of reel and component quantity

Case Dia (D ϕ) or Case Size	Q'ty per Box (pcs)	Dim. A	Dim. B
4 ϕ	1,800	42	52
5 ϕ	1,500	42	52
6.3 ϕ	1,000	42	52
8 ϕ	800	42	52
10x12.5*	600	42	52
10x16*	600	48	56
10x20*	600	52	60
12.x20*	250	52	60
12.5x25*	250	56	64

*Special Taping Consult Factory For Availability

