

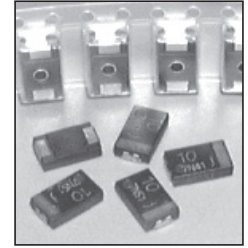
Surface Mount Specialty Polymer Solid Aluminum Electrolytic Capacitors

NSP Series

FEATURES

- NEW "X", "Y", "Z", "U" & "V" TYPE HIGH RIPPLE CURRENT/VERY LOW ESR
- REPLACES MULTIPLE TANTALUM CHIPS IN HIGH CURRENT POWER SUPPLIES AND VOLTAGE REGULATORS
- FITS EIA (7343) "D" AND "E" TANTALUM CHIP LAND PATTERNS
- Pb-FREE AND COMPATIBLE WITH REFLOW SOLDERING

*****EXPANDED***
NEW ULTRA
LOW ESR 3.0mΩ**



CHARACTERISTICS

Rated Working Range	2.0 ~ 16VDC		
Rated Capacitance Range	2.2 ~ 560μF		
Operating Temperature Range	-40 ~ +105°C		
Capacitance Tolerance	± 20% (M)		
Max. Leakage Current (μA) After 2 Minutes (+20°C)	All Case Sizes	See Standard Products and Specifications Tables	
Max. Tan δ, 120Hz, +20°C			
High Temperature Load Life 1,000 Hours @ 105°C at Rated Working Voltage	Capacitance Change	Within ±10% of initial measured value	
	Tan δ	Less than specified max. value	
	Leakage Current	Less than specified max. value	
Damp Heat Test 500 Hours @ +60°C at 90 ~ 95% RH and Rated Working Voltage	Capacitance Change	8V ~ 16V	Within -20%/+40% of initial measured value
		6.3V	Within -20%/+50% of initial measured value
		4V	Within -20%/+60% of initial measured value
		2V, 2.5V	Within -20%/+70% of initial measured value
	Tan δ	Less than 200% of specified max. value	
Leakage Current	Less than specified max. value		

LOW ESR COMPONENT
SOLID POLYMER ELECTROLYTE
For Performance Data
see www.LowESR.com

STANDARD PRODUCTS AND SPECIFICATIONS

NIC Part Number	WV (Vdc)	Cap. (μF)	Max. LC (μA)	Tan δ	Max. Ripple Current +105°C & 100KHz (mArms)	Max. ESR +20°C & 100KHz (Ω)	Height H
NSP101M2D2ATRF	2.0	100	20.0	0.06	2,500	0.018	1.8±0.1
NSP101M2D2XATRF		100	20.0	0.06	2,700	0.015	1.8±0.1
NSP101M2D2ZATRF		100	20.0	0.06	3,000	0.009	1.8±0.1
NSP121M2D2ATRF		120	24.0	0.06	2,500	0.018	1.8±0.1
NSP121M2D2XATRF		120	24.0	0.06	2,700	0.015	1.8±0.1
NSP121M2D2ZATRF		120	24.0	0.06	3,000	0.009	1.8±0.1
NSP151M2D2ATRF		150	30.0	0.06	2,500	0.018	1.8±0.1
NSP151M2D2ZATRF		150	30.0	0.06	3,000	0.009	1.8±0.1
NSP181M2D2ATRF		180	36.0	0.06	2,500	0.018	1.8±0.1
NSP181M2D2ZATRF		180	36.0	0.06	3,000	0.009	1.8±0.1
NSP181M2D6ZATRF		180	36.0	0.06	3,000	0.009	1.9±0.2
NSP221M2D2ATRF		220	26.4	0.06	2,500	0.018	1.8±0.1
NSP221M2D2ZATRF		220	44.0	0.06	3,000	0.009	1.8±0.1
NSP221M2D6ATRF		220	44.0	0.06	2,700	0.015	1.9±0.2
NSP221M2D6ZATRF		220	44.0	0.06	3,000	0.009	1.9±0.2
NSP271M2D6XATRF		270	54.0	0.06	3,000	0.012	1.9±0.2
NSP271M2D6ZATRF		270	37.5	0.06	3,000	0.009	1.9±0.2
NSP271M2D6YATRF		270	37.5	0.06	3,500	0.006	1.9±0.2
NSP271M2D6UATRF		270	37.5	0.06	3,800	0.0045	1.9±0.2
NSP331M2D6ATRF		330	66.0	0.06	2,700	0.015	1.9±0.2
NSP331M2D6XATRF		330	66.0	0.06	3,000	0.012	1.9±0.2
NSP331M2D6ZATRF		330	45.0	0.10	3,000	0.009	1.9±0.2
NSP331M2D6YATRF		330	45.0	0.06	3,500	0.006	1.9±0.2
NSP331M2D6UATRF		330	45.0	0.06	3,500	0.0045	1.9±0.2
NSP331M2D6VATRF		330	66.0	0.06	4,000	0.003	1.9±0.2
NSP391M2D6ATRF		390	78.0	0.06	2,700	0.015	1.9±0.2
NSP391M2D6ZATRF		390	78.0	0.06	3,000	0.009	1.9±0.2
NSP391M2D6YATRF		390	78.0	0.06	3,500	0.006	1.9±0.2
NSP391M2D6UATRF		390	78.0	0.06	3,800	0.0045	1.9±0.2
NSP471M2D6ATRF		470	94.0	0.06	2,700	0.015	1.9±0.2
NSP471M2D6ZATRF		470	94.0	0.06	3,000	0.009	1.9±0.2
NSP471M2D6YATRF		470	94.0	0.06	3,500	0.006	1.9±0.2

New Values



Surface Mount Specialty Polymer Solid Aluminum Electrolytic Capacitors

NSP Series

STANDARD PRODUCTS AND SPECIFICATIONS

NIC Part Number	WV	Cap.	Max. LC	Tan δ	Max. Ripple Current +105°C & 100KHz (mArms)	Max. ESR +20°C & 100KHz (Ω)	Height H	
	(Vdc)	(μ F)	(μ A)					
NSP471M2D6UATRF	2.0	470	94.0	0.06	3,800	0.0045	1.9±0.2	
NSP471M2D6VATRF		470	94.0	0.06	4,000	0.003	1.9±0.2	
NSP561M2D6ATRF		560	112.0	0.06	2,700	0.015	1.9±0.1	
NSP561M2D6UATRF		560	112.0	0.06	3,800	0.0045	1.9±0.1	
NSP561M2D6VATRF		560	112.0	0.06	4,000	0.003	1.9±0.1	
NSP820M2.5D2ATRF		2.5	82	20.5	0.06	2,500	0.018	1.8±0.1
NSP820M2.5D2XATRF			82	20.5	0.06	2,700	0.015	1.8±0.1
NSP101M2.5D2ATRF			100	25.0	0.06	2,500	0.018	1.8±0.1
NSP101M2.5D2XATRF			100	25.0	0.06	2,700	0.015	1.8±0.1
NSP101M2.5D2ZATRF			100	25.0	0.06	3,000	0.009	1.8±0.1
NSP121M2.5D2ATRF			120	30.0	0.06	2,500	0.018	1.8±0.1
NSP121M2.5D2ZATRF			120	30.0	0.06	3,000	0.009	1.8±0.1
NSP151M2.5D2ATRF			150	37.5	0.06	2,500	0.018	1.8±0.1
NSP151M2.5D2ZATRF			150	37.5	0.06	3,000	0.009	1.8±0.1
NSP151M2.5D6ZATRF	150		37.5	0.06	3,000	0.009	1.9±0.2	
NSP181M2.5D6ZATRF	180		45.0	0.06	3,000	0.009	1.9±0.2	
NSP221M2.5D6ATRF	220		55.0	0.06	2,700	0.015	1.9±0.2	
NSP221M2.5D6ZATRF	220		55.0	0.06	3,000	0.009	1.9±0.2	
NSP221M2.5D6YATRF	220		55.0	0.06	3,500	0.007	1.9±0.2	
NSP271M2.5D6YATRF	270		67.5	0.06	3,500	0.007	1.9±0.2	
NSP331M2.5D6ATRF	330		82.5	0.06	2,700	0.015	1.9±0.2	
NSP331M2.5D6ZATRF	330		82.5	0.06	3,000	0.009	1.9±0.2	
NSP331M2.5D6YATRF	330		82.5	0.06	3,500	0.006	1.9±0.2	
NSP331M2.5D6UATRF	330		82.5	0.06	3,800	0.0045	1.9±0.2	
NSP391M2.5D6ATRF	390		97.5	0.06	2,700	0.015	1.9±0.2	
NSP391M2.5D6ZATRF	390		97.5	0.06	3,000	0.009	1.9±0.2	
NSP391M2.5D6YATRF	390		97.5	0.06	3,500	0.006	1.9±0.2	
NSP391M2.5D6UATRF	390		97.5	0.06	3,800	0.0045	1.9±0.2	
NSP471M2.5D6ATRF	470		117.5	0.06	2,700	0.015	1.9±0.2	
NSP471M2.5D6ZATRF	470	117.5	0.06	3,500	0.009	1.9±0.2		
NSP471M2.5D6YATRF	470	117.5	0.06	3,500	0.006	1.9±0.2		
NSP471M2.5D6UATRF	470	117.5	0.06	3,800	0.0045	1.9±0.2		
NSP471M2.5D6VATRF	470	117.5	0.06	4,000	0.003	1.9±0.2		
NSP560M4D2ATRF	4.0	56	22.4	0.06	2,500	0.018	1.8±0.1	
NSP560M4D2XATRF		56	22.4	0.06	2,700	0.015	1.8±0.1	
NSP680M4D2ATRF		68	27.2	0.06	2,500	0.018	1.8±0.1	
NSP680M4D2XATRF		68	27.2	0.06	2,700	0.015	1.8±0.1	
NSP820M4D2ATRF		82	32.8	0.06	2,500	0.018	1.8±0.1	
NSP820M4D2XATRF		82	32.8	0.06	2,700	0.015	1.8±0.1	
NSP820M4D2ZATRF		82	32.8	0.06	3,000	0.009	1.8±0.1	
NSP820M4D6ZATRF		82	32.8	0.06	3,000	0.009	1.9±0.2	
NSP101M4D2ATRF		6.3	100	40.0	0.06	1,800	0.018	1.8±0.1
NSP101M4D6ZATRF			100	40.0	0.06	3,000	0.009	1.9±0.2
NSP151M4D6ATRF			150	60.0	0.06	2,700	0.015	1.9±0.2
NSP151M4D6ZATRF			150	60.0	0.06	3,000	0.009	1.9±0.2
NSP151M4D6YATRF			150	60.0	0.06	3,500	0.007	1.9±0.2
NSP181M4D6ATRF			180	72.0	0.06	2,700	0.015	1.9±0.2
NSP181M4D6XATRF			180	72.0	0.06	3,000	0.012	1.9±0.2
NSP181M4D6ZATRF			180	72.0	0.06	3,000	0.009	1.9±0.2
NSP221M4D6ATRF			220	88.0	0.06	2,700	0.015	1.9±0.2
NSP221M4D6XATRF			220	88.0	0.06	3,000	0.012	1.9±0.2
NSP221M4D6ZATRF			220	88.0	0.06	3,000	0.009	1.9±0.2
NSP271M4D6ATRF			270	108.0	0.06	2,700	0.015	1.9±0.2
NSP331M4D4ATRF			330	132.0	0.10	3,700	0.012	4.2±0.1
NSP100M6.3D2ATRF			6.3	10	6.3	0.06	1,400	0.055
NSP220M6.3D2ATRF		22		13.9	0.06	1,600	0.040	1.8±0.1
NSP330M6.3D2ATRF		33		20.8	0.06	2,000	0.028	1.8±0.1
NSP470M6.3D2ATRF	47	29.6		0.06	2,500	0.018	1.8±0.1	
NSP470M6.3D2XATRF	47	29.6		0.06	2,700	0.015	1.8±0.1	
NSP680M6.3D2ATRF	68	42.8		0.06	2,500	0.018	1.8±0.1	
NSP680M6.3D2XATRF	68	42.8	0.06	2,700	0.015	1.8±0.1		

New Values



Surface Mount Specialty Polymer Solid Aluminum Electrolytic Capacitors

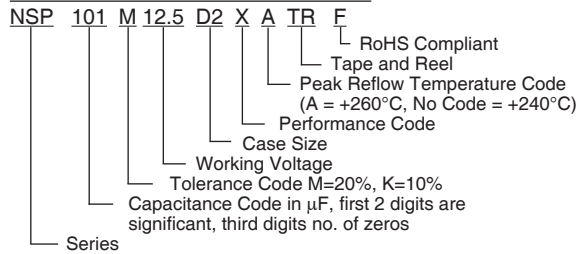
NSP Series

STANDARD PRODUCTS AND SPECIFICATIONS

NIC Part Number (Reflow 260°C)	WV (Vdc)	Cap. (μ F)	Max. LC (μ A)	Tan δ	Max. Ripple Current +105°C & 100KHz (mA _{rms})	Max. ESR +20°C & 100KHz (Ω)	Height H
NSP101M6.3D6ATRF	6.3	100	63.0	0.06	2,700	0.015	1.9±0.2
NSP121M6.3D6ATRF		120	75.6	0.06	2,700	0.015	1.9±0.2
NSP121M6.3D6ZATRF		120	75.6	0.06	3,500	0.007	1.9±0.2
NSP151M6.3D6ATRF		150	94.5	0.06	2,700	0.015	1.9±0.2
NSP151M6.3D6XATRF		150	75.6	0.06	3,000	0.012	1.9±0.2
NSP151M6.3D6ZATRF		150	94.5	0.06	3,000	0.009	1.9±0.2
NSP181M6.3D6ATRF		180	113.4	0.06	2,700	0.015	1.9±0.2
NSP221M6.3D4ATRF		220	138.6	0.10	3,000	0.015	4.2±0.1
NSP8R2M8D2ATRF		8.0	8.2	6.3	0.06	1,400	0.055
NSP150M8D2ATRF	15		12.0	0.06	1,600	0.040	1.8±0.1
NSP220M8D2ATRF	22		17.6	0.06	2,000	0.028	1.8±0.1
NSP330M8D2ATRF	33		26.4	0.06	2,500	0.018	1.8±0.1
NSP470M8D2ATRF	47		37.6	0.06	1,800	0.025	1.8±0.1
NSP680M8D3ATRF	68		54.4	0.10	3,000	0.015	2.8±0.2
NSP101M8D3ATRF	100		80.0	0.10	2,500	0.018	2.8±0.2
NSP151M8D4ATRF	150		120.0	0.10	3,000	0.015	4.2±0.1
NSP220M10D2ATRF	10		22	22.0	0.06	1,600	0.030
NSP330M10D2ATRF		33	33.0	0.06	1,800	0.025	1.8±0.1
NSP390M10D2ATRF		39	39.0	0.06	1,800	0.025	1.8±0.1

New Values

PART NUMBERING SYSTEM



TERMINATION MATERIAL:

D2 - D6, D2X - D6X, D3Y, D4Y Sizes
 Base: Fe (~ 100 μ m)
 Under Plating: Cu (~ 5 μ m)
 Finish Plating: Sn (5 ~ 9 μ m)

D2Z - D6Z, D6Y, D6U, D6V Sizes
 Base: Cu (~ 105 μ m)
 Finish Plating: Sn (5 ~ 9 μ m)

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. In doubt or uncertainty, please review your specific application - process details with NIC's technical support personnel: tpmg@niccomp.com



Not Recommended for New Designs

Note: The following parts are supported but not recommended for new designs

NIC Part Number (Reflow 240°C)	NIC Part Number (Reflow 260°C)	WV (Vdc)	Cap. (μF)	Max. LC (μA)		Tan δ	Max. Ripple Current +105°C & 100KHz (mArms)	Max. ESR +20°C & 100KHz (Ω)	Height H	
				240°C	260°C					
NSP680M2D5TRF	N/A	2.0	68	8.1	-	0.06	2,000	0.028	1.1±0.1	
N/A	NSP271M2D4ATRF		270	-	54.0	0.10	3,300	0.012	4.2±0.1	
N/A	NSP271M2D4XATRF		270	-	54.0	0.10	3,500	0.010	4.2±0.1	
N/A	NSP331M2D3ATRF		330	-	66.0	0.10	3,000	0.015	2.8±0.2	
N/A	NSP331M2D3XATRF		330	-	66.0	0.10	3,300	0.012	2.8±0.2	
N/A	NSP331M2D3YATRF		330	-	66.0	0.10	3,400	0.009	2.8±0.2	
N/A	NSP331M2D4ATRF		330	-	66.0	0.10	3,300	0.012	4.2±0.1	
N/A	NSP331M2D4XATRF		330	-	66.0	0.10	3,500	0.010	4.2±0.1	
N/A	NSP391M2D3ATRF		390	-	78.0	0.10	3,000	0.015	2.8±0.2	
N/A	NSP391M2D3YATRF		390	-	78.0	0.10	3,400	0.009	2.8±0.2	
N/A	NSP391M2D4ATRF		390	-	78.0	0.10	3,300	0.012	4.2±0.1	
N/A	NSP391M2D4XATRF		390	-	78.0	0.10	3,500	0.010	4.2±0.1	
N/A	NSP391M2D4YATRF		390	-	78.0	0.10	3,700	0.007	4.2±0.1	
N/A	NSP471M2D4ATRF		470	-	94.0	0.10	3,300	0.012	4.2±0.1	
N/A	NSP471M2D3YATRF		470	-	94.0	0.10	3,400	0.009	2.8±0.1	
N/A	NSP471M2D4XATRF		470	-	94.0	0.10	3,500	0.010	4.2±0.1	
N/A	NSP471M2D4YATRF		470	-	94.0	0.10	3,700	0.007	4.2±0.1	
N/A	NSP561M2D4ATRF		560	-	112.0	0.10	3,300	0.012	4.2±0.1	
N/A	NSP561M2D4YATRF		560	-	112.0	0.10	3,700	0.007	4.2±0.1	
NSP560M2.5D5TRF	N/A		2.5	56	8.4	-	0.06	2,000	0.028	1.1±0.1
N/A	NSP221M2.5D3ATRF	220		-	55.0	0.10	3,000	0.015	2.8±0.2	
N/A	NSP221M2.5D3XATRF	220		-	55.0	0.10	3,300	0.012	2.8±0.2	
N/A	NSP221M2.5D3YATRF	220		-	78.0	0.10	3,400	0.009	2.8±0.2	
N/A	NSP221M2.5D4ATRF	220		-	55.0	0.10	3,300	0.012	4.2±0.1	
N/A	NSP221M2.5D4XATRF	220		-	55.0	0.10	3,500	0.010	4.2±0.1	
N/A	NSP271M2.5D3ATRF	270		-	67.5	0.10	3,000	0.015	2.8±0.2	
N/A	NSP271M2.5D3YATRF	270		-	78.0	0.10	3,400	0.009	2.8±0.2	
N/A	NSP271M2.5D4ATRF	270		-	67.5	0.10	3,300	0.012	4.2±0.1	
N/A	NSP271M2.5D4XATRF	270		-	67.5	0.10	3,500	0.010	4.2±0.1	
N/A	NSP331M2.5D4ATRF	330		-	82.5	0.10	3,300	0.012	4.2±0.1	
N/A	NSP331M2.5D4XATRF	330		-	82.5	0.10	3,500	0.010	4.2±0.1	
N/A	NSP331M2.5D4YATRF	330		-	82.5	0.10	3,700	0.007	4.2±0.1	
N/A	NSP391M2.5D4ATRF	390		-	97.5	0.10	3,300	0.012	4.2±0.1	
N/A	NSP391M2.5D4YATRF	390		-	97.5	0.10	3,700	0.007	4.2±0.1	
N/A	NSP471M2.5D4ATRF	470		-	117.5	0.10	3,300	0.012	4.2±0.1	
N/A	NSP471M2.5D4YATRF	470		-	117.5	0.10	3,700	0.007	4.2±0.1	
NSP390M4D5TRF	N/A	4		39	9.3	-	0.06	2,000	0.028	1.1±0.1
NSP470M4D5TRF	N/A			47	11.3	-	0.06	2,000	0.028	1.1±0.1
N/A	NSP121M4D3ATRF			120	-	48.0	0.10	3,000	0.015	2.8±0.2
N/A	NSP121M4D3XATRF		120	-	48.0	0.10	3,300	0.012	2.8±0.2	
N/A	NSP151M4D3ATRF		150	-	60.0	0.10	3,000	0.015	2.8±0.2	
N/A	NSP151M4D3XATRF		150	-	60.0	0.10	3,300	0.012	2.8±0.2	
N/A	NSP151M4D3YATRF		150	-	60.0	0.10	3,400	0.009	2.8±0.2	
N/A	NSP181M4D3ATRF		180	-	72.0	0.10	2,500	0.018	2.8±0.2	
N/A	NSP181M4D4ATRF		180	-	72.0	0.10	3,300	0.012	4.2±0.1	
N/A	NSP181M4D3YATRF		180	-	72.0	0.10	3,400	0.009	2.8±0.2	
N/A	NSP181M4D4XATRF		180	-	72.0	0.10	3,500	0.010	4.2±0.1	
N/A	NSP221M4D4ATRF		220	-	88.0	0.10	3,300	0.012	4.2±0.1	
N/A	NSP221M4D4XATRF		220	-	88.0	0.10	3,500	0.010	4.2±0.1	
N/A	NSP221M4D4YATRF		220	-	88.0	0.10	3,700	0.007	4.2±0.1	
N/A	NSP271M4D4ATRF		270	-	108.0	0.10	3,300	0.012	4.2±0.1	
N/A	NSP271M4D4YATRF		270	-	108.0	0.10	3,700	0.007	4.2±0.1	
NSP330M6.3D5TRF	N/A		6.3	33	8.3	-	0.06	2,000	0.028	1.1±0.1
NSP560M6.3D2ZTRF	N/A			56	14.1	-	0.06	3,000	0.009	1.8±0.1
N/A	NSP101M6.3D3ATRF			100	-	63.0	0.10	3,000	0.015	2.8±0.2
N/A	NSP101M6.3D3XATRF			100	-	63.0	0.10	3,300	0.012	2.8±0.2
N/A	NSP121M6.3D3ATRF	120		-	75.6	0.10	3,000	0.015	2.8±0.2	
N/A	NSP121M6.3D3XATRF	120		-	75.6	0.10	3,300	0.012	2.8±0.2	
N/A	NSP151M6.3D3ATRF	150		-	94.5	0.10	2,500	0.018	2.8±0.2	

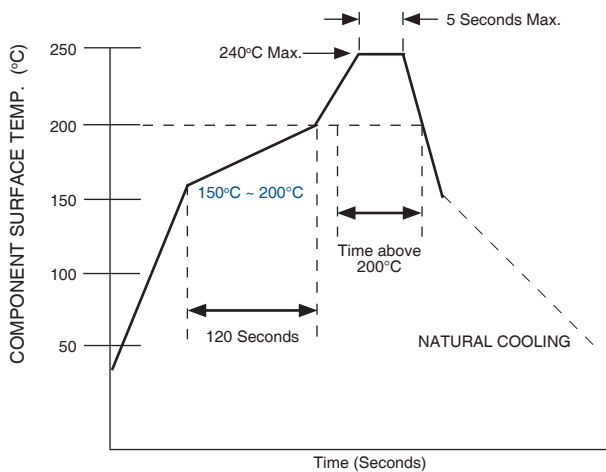


Not Recommended for New Designs

Note: The following parts are supported but not recommended for new designs

NIC Part Number (Reflow 240°C)	NIC Part Number (Reflow 260°C)	WV (Vdc)	Cap. (μ F)	Max. LC (μ A)		Tan δ	Max. Ripple Current +105°C & 100KHz (mA _{rms})	Max. ESR +20°C & 100KHz (Ω)	Height H
				240°C	260°C				
N/A	NSP151M6.3D4ATRF	6.3	150	-	94.5	0.10	3,300	0.012	4.2±0.1
N/A	NSP151M6.3D4XATRF		150	-	94.5	0.10	3,500	0.010	4.2±0.1
N/A	NSP181M6.3D4ATRF		180	-	113.4	0.10	3,300	0.012	4.2±0.1
N/A	NSP181M6.3D4XATRF		180	-	113.4	0.10	3,500	0.010	4.2±0.1
NSP181M6.3D4YTRF	N/A		180	45.4	-	0.10	3,700	0.007	4.2±0.1
NSP181M6.3D4ZTRF	N/A		180	45.4	-	0.10	4,000	0.005	4.2±0.1
NSP220M8D5TRF	N/A	8.0	22	7.0	-	0.06	2,000	0.028	1.1±0.1
NSP101M8D4TRF	NSP101M8D4ATRF		100	32.0	80.0	0.10	3,300	0.012	4.2±0.1
NSP4R7M12.5D2TRF	N/A	12.5	4.7	3.0	-	0.06	1,000	0.080	1.8±0.1
NSP100M12.5D2TRF	N/A		10	5.0	-	0.06	1,000	0.060	1.8±0.1
NSP150M12.5D5TRF	N/A		15	7.5	-	0.06	1,400	0.040	1.1±0.1
NSP150M12.5D2TRF	N/A		15	7.5	-	0.06	1,300	0.050	1.8±0.1
NSP220M12.5D2TRF	N/A		22	11.0	-	0.06	1,600	0.030	1.8±0.1
NSP2R2M16D2TRF	N/A		16	2.2	3.0	-	0.06	1,000	0.110
NSP4R7M16D2TRF	N/A	4.7		3.0	-	0.06	1,000	0.080	1.8±0.1
NSP6R8M16D2TRF	N/A	6.8		4.4	-	0.06	1,000	0.070	1.8±0.1
NSP8R2M16D2TRF	N/A	8.2		5.2	-	0.06	1,300	0.045	1.8±0.1

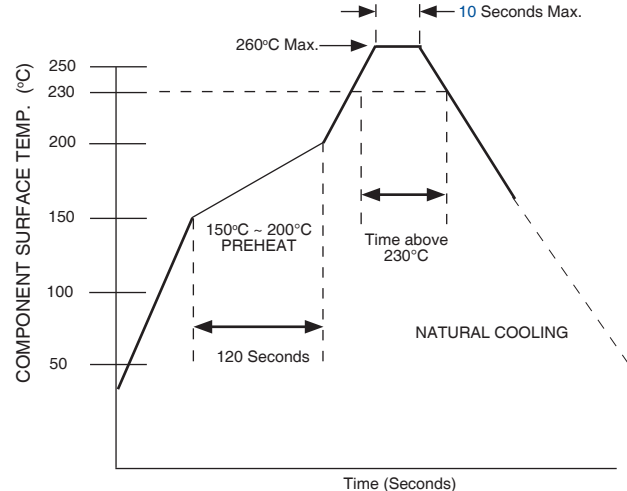
RECOMMENDED 240°C REFLOW SOLDERING PROFILE (2D5-12.5D5, 12.5D2 ~ 16D2, 121M6.3D3Z, 151M6.3D3Z, 181M6.3D4Y, 221M6.3D4Y)



DURATION ABOVE 200°C (FOR 240°C REFLOW PARTS)

If Peak Soldering Temperature is	Maximum Time Above +200°C is
240°C, 5 seconds max.	30 seconds
230°C, 5 seconds max.	40 seconds

RECOMMENDED 260°C REFLOW SOLDERING PROFILE (D2A, D2XA, D2ZA, D3A, D3XA, D3YA, D4A, D4XA, D4YA, D6A, D6ZA, D6UA, D6VA)



DURATION ABOVE 230°C (FOR 260°C REFLOW PARTS)

If Peak Soldering Temperature is	Maximum Time Above +230°C is
260°C, 10 seconds max.	40 seconds
255°C, 10 seconds max.	50 seconds
250°C, 10 seconds max.	60 seconds

Notes:

1. SAC alloy (+217°C) reflow soldering compatible
2. Soldering heat limits apply to the top surface of component
3. If you have concerns about your reflow soldering profile review them with NIC to insure compatible [tpmg@niccomp.com]
4. Two passes through the reflow process are allowed (cooling down period between process).

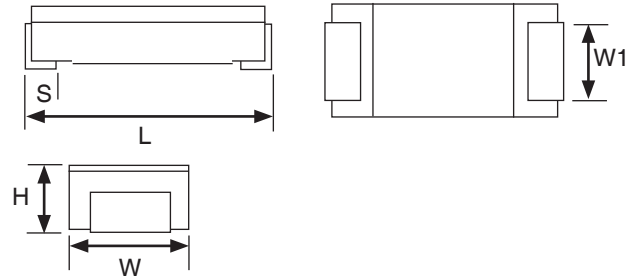


Surface Mount Specialty Polymer Solid Aluminum Electrolytic Capacitors

NSP Series

DIMENSIONS (mm)

Case Code	L ±0.4	W ±0.3	H	W1 ±0.2	S ±0.3
D2 ~ D6	7.3	4.3	see values table	2.4	1.3

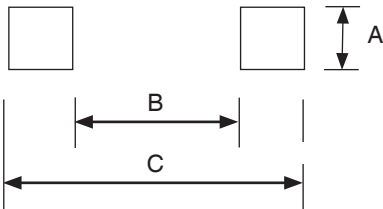


VOLTAGE CODES

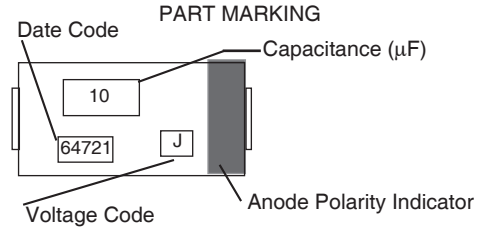
Voltage	Code
2.0Vdc	D
2.5Vdc	E
4.0Vdc	G
6.3Vdc	J
8Vdc	K
10Vdc	A
12.5Vdc	B
16Vdc	C

RECOMMENDED LAND PATTERNS (mm)

Case Code	A	B	C
D2 ~ D6	2.8	4.0	8.8

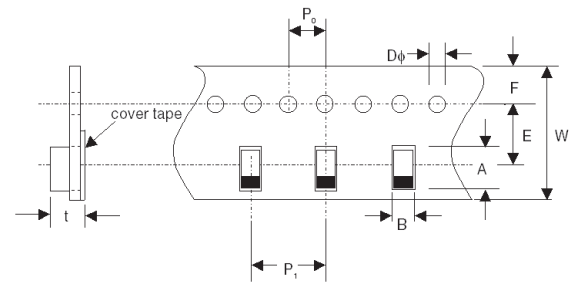


Please note the NSP series will fit on standard "D" and "E" size (7343) tantalum chip capacitor land patterns



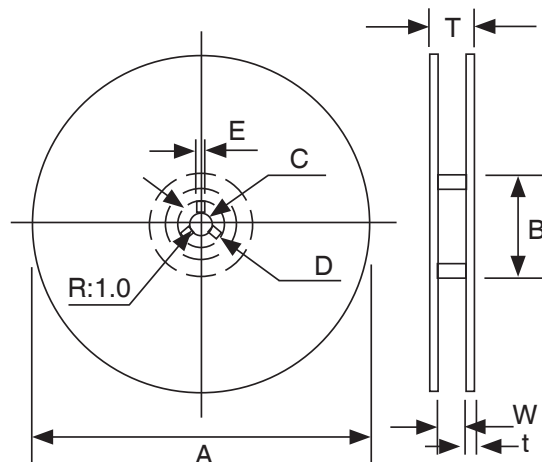
CARRIER TAPE DIMENSIONS (mm)

Case Code	A±0.2	B±0.2	Dφ	E±0.1	F±0.1	P _o ±0.1	P _i ±0.1	t±0.2	W±0.3
D5	7.7	4.6	1.5 ^{+0.1}	1.75	5.5	4.0	8.0	1.5	12.0
D2, D6								2.1	
D3								3.4	
D4								4.5	



REEL DIMENSIONS (mm)

A±2.0	B min.	C±0.5	D±0.8	E±0.5	T±1.0	t	W±1.0
330	50	13.0	21.0	2.0	20.0	3.0	14



Case Code	Reel Quantity
D5, D6, D2	3,500
D3, D4	2,000

