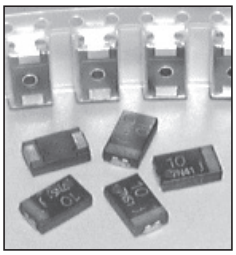
Surface Mount Specialty Polymer Solid Aluminum Electrolytic Capacitors

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



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

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

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 (Vdc)	Cap. (µF)	Max. LC (µA)	Tan δ	Max. Ripple Current +105°C & 100KHz (mArms)	Max. ESR +20°C & 100KHz (Ω)	Height H
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		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	1.8±0.1
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. (µF)	Max. LC (µA)	Tan δ	Max. Ripple Current +105°C & 100KHz (mArms)	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	1.8±0.1
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	1.8±0.1
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

NSP 101 M 12.5 D2 X A TR F

- F — RoHS Compliant
- TR — Tape and Reel
- A — Peak Reflow Temperature Code (A = +260°C, No Code = +240°C)
- X — Performance Code
- D2 — Case Size
- 12.5 — Working Voltage
- M — Tolerance Code M=20%, K=10%
- 101 — Capacitance Code in µF, first 2 digits are significant, third digits no. of zeros
- NSP — Series

TERMINATION MATERIAL:

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

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

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**

Not Recommended for New Designs

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

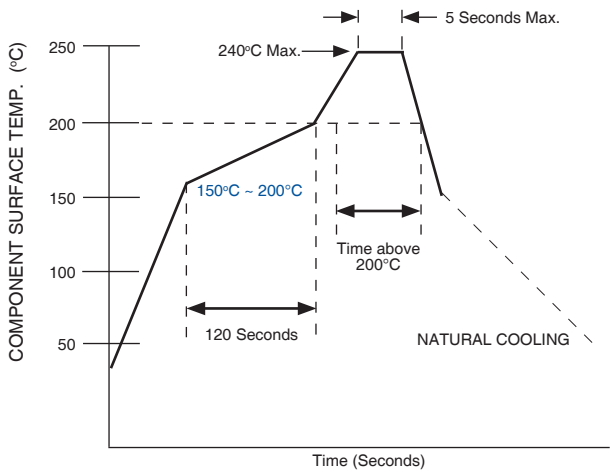
NIC Part Number (Reflow 240°C)	NIC Part Number (Reflow 260°C)	WV (Vdc)	Cap. (µF)	Max. LC (µA) 240°C	Max. LC (µA) 260°C	Tan δ	Max. Ripple Current +105°C & 100KHz (mArms)	Max. ESR +20°C & 100KHz (Ω)	Height H
NSP680M2D5TRF	N/A	2.0	68	8.1	-	0.06	2,000	0.028	1.1±0.1
N/A	NSP271M2D4ATRF		270	-	54.0	0.10	3,300	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

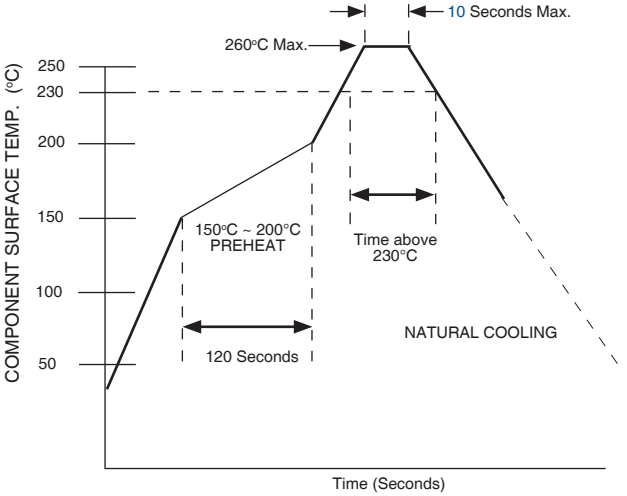
Note: The following parts are supported but not recommended for new designs

NIC Part Number (Reflow 240°C)	NIC Part Number (Reflow 260°C)	WV (Vdc)	Cap. (µF)	Max. LC (µA) 240°C	Max. LC (µA) 260°C	Tan δ	Max. Ripple Current +105°C & 100KHz (mArms)	Max. ESR +20°C & 100KHz (Ω)	Height H
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	1.8±0.1
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)



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



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

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

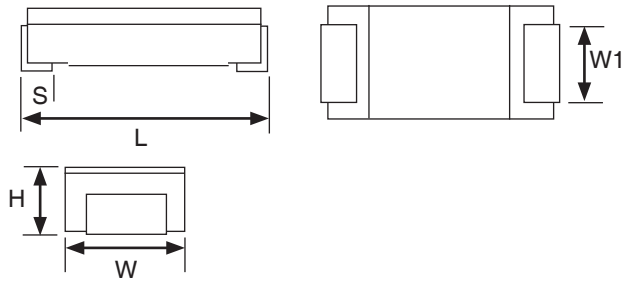
Notes:
1. SAC alloy (+217°C) reflow soldering compatible
2. Soldering heat limits apply to the top surface of component
3. If you have concerns about your reflow soldering profile review them with NIC to insure compatible [tpmg@niccomp.com]
4. Two passes through the reflow process are allowed (cooling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

Surface Mount Specialty Polymer Solid Aluminum Electrolytic Capacitors

NSP Series

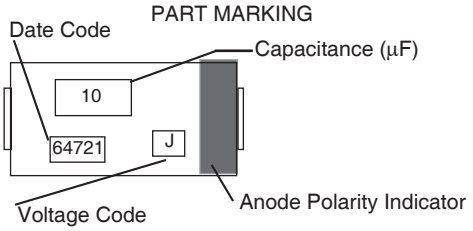
DIMENSIONS (mm)

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



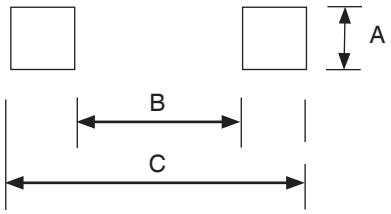
VOLTAGE CODES

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)

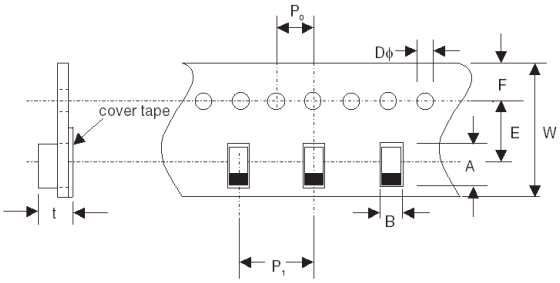
Case Code	A	B	C
D2 ~ D6	2.8	4.0	8.8



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

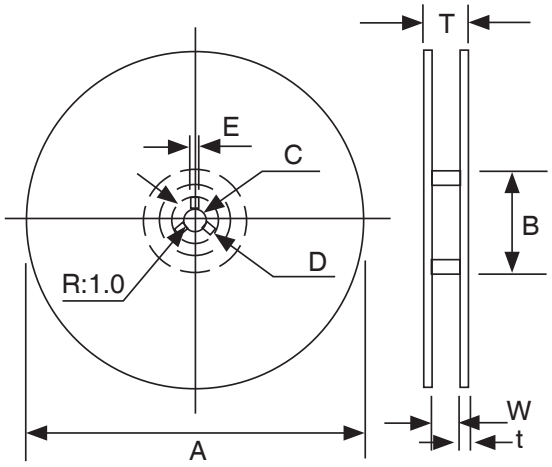
CARRIER TAPE DIMENSIONS (mm)

Case Code	A±0.2	B±0.2	Dϕ	E±0.1	F±0.1	P_o±0.1	P_1±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