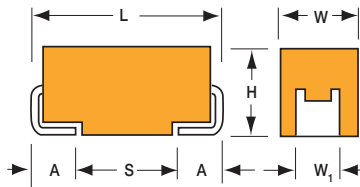
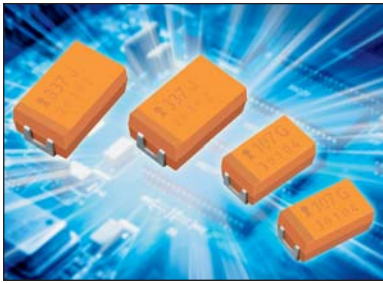
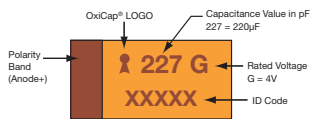


Standard and Low Profile Niobium Oxide Capacitors

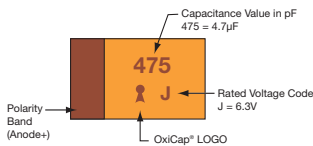


MARKING

A, B, C, D, E, F, S, T, V, W, X, Y CASE



P CASE



HOW TO ORDER

NOJ	D	107	M	006	R	WJ	-
Type	Case Size See tables above	Capacitance Code 1st two digits represent significant figures, 3rd digit represents multiplier in pF	Tolerance M=±20%	Rated DC Voltage 001 = 1.8Vdc 002 = 2.5Vdc 004 = 4Vdc 006 = 6.3Vdc 010 = 10Vdc	Packaging R = Pure Tin 7" Reel S = Pure Tin 13" Reel	Specification Suffix WJ = Standard WB = Low ESR	Additional characters may be added for special requirements V = dry pack option (selected ratings only - dry pack is standard for all D, E, V, X, Y case size ratings)

TECHNICAL SPECIFICATIONS

Technical Data:	All technical data relate to an ambient temperature of +25°C is not stated						
Capacitance Range:	2.2 µF to 1000 µF						
Capacitance Tolerance:	±20%						
Leakage Current DCL:	0.02CV or 1.0µA whichever is the greater						
Rated Voltage DC (V _R)	≤ +85°C:	1.8	2.5	4	6.3	10	
Category Voltage (V _C)	≤ +105°C:	1.2	1.7	2.7	4	7	
Surge Voltage (V _S)	≤ +85°C:	2.3	3.3	5.2	8	13	
Surge Voltage (V _S)	≤ +105°C:	1.6	2.2	3.4	5	8	
Temperature Range:	-55°C to +105°C						
Reliability:	0.5% per 1000 hours at 85°C, V _R , 0.1Ω/V series impedance, 60% confidence level Meets requirements of AEC-Q200						

FEATURES

- Non-burn safe technology
- Reliability level: 0.5%/1000 hours at 85°C
- 13 case sizes available, standard and low profile
- Environmentally friendly, RoHS Compliant
- CV range: 2.2-1000µF / 1.8-10V
- Elektra Component of the Year Award, 2005



Elektra Award 2005

APPLICATIONS

- Automotive, Avionics, Digital, FPGA, Industrial low voltage control circuits
- Downsized industrial and automotive DC/DC converters

STANDARD CASE DIMENSIONS: millimeters (inches)

Code	EIA Code	EIA Metric	L±0.20 (0.008)	W+0.20 (0.008) -0.10 (0.004)	H+0.20 (0.008) -0.10 (0.004)	W ₁ ±0.20 (0.008)	A+0.30 (0.012) -0.20 (0.008)	S Min.
A	1206	3216-18	3.20 (0.126)	1.60 (0.063)	1.60 (0.063)	1.20 (0.047)	0.80 (0.031)	1.10 (0.043)
B	1210	3528-21	3.50 (0.138)	2.80 (0.110)	1.90 (0.075)	2.20 (0.087)	0.80 (0.031)	1.40 (0.055)
C	2312	6032-28	6.00 (0.236)	3.20 (0.126)	2.60 (0.102)	2.20 (0.087)	1.30 (0.051)	2.90 (0.114)
D	2917	7343-31	7.30 (0.287)	4.30 (0.169)	2.90 (0.114)	2.40 (0.094)	1.30 (0.051)	4.40 (0.173)
E	2917	7343-43	7.30 (0.287)	4.30 (0.169)	4.10 (0.162)	2.40 (0.094)	1.30 (0.051)	4.40 (0.173)
V	2924	7361-38	7.30 (0.287)	6.10 (0.240)	3.55 (0.140)	3.10 (0.120)	1.30 (0.051)	4.40 (0.173)

W₁ dimension applies to the termination width for A dimensional area only.

LOW PROFILE CASE DIMENSIONS: millimeters (inches)

Code	EIA Code	EIA Metric	L±0.20 (0.008)	W+0.20 (0.008) -0.10 (0.004)	H Max	W ₁ ±0.20 (0.008)	A+0.30 (0.012) -0.20 (0.008)	S Min.
F	2312	6032-20	6.00 (0.236)	3.20 (0.126)	2.00 (0.079)	2.20 (0.087)	1.30 (0.051)	2.90 (0.114)
P	0805	2012-15	2.05 (0.081)	1.35 (0.053)	1.50 (0.059)	1.00±0.10 (0.039±0.004)	0.50 (0.020)	0.85 (0.033)
S	1206	3216-12	3.20 (0.126)	1.60 (0.063)	1.20 (0.047)	1.20 (0.047)	0.80 (0.031)	1.10 (0.043)
T	1210	3528-12	3.50 (0.138)	2.80 (0.110)	1.20 (0.047)	2.20 (0.087)	0.80 (0.031)	1.40 (0.055)
W	2312	6032-15	6.00 (0.236)	3.20 (0.126)	1.50 (0.059)	2.20 (0.087)	1.30 (0.051)	2.90 (0.114)
X	2917	7343-15	7.30 (0.287)	4.30 (0.169)	1.50 (0.059)	2.40 (0.094)	1.30 (0.051)	4.40 (0.173)
Y	2917	7343-20	7.30 (0.287)	4.30 (0.169)	2.00 (0.079)	2.40 (0.094)	1.30 (0.051)	4.40 (0.173)

W₁ dimension applies to the termination width for A dimensional area only.
Pad Stand-off is 0.1±0.1.

Standard and Low Profile Niobium Oxide Capacitors

STANDARD NIOBIUM OXIDE CAPACITANCE AND RATED VOLTAGE RANGE (LETTER DENOTES CASE SIZE)

Capacitance		Rated Voltage DC (V _R) to 85°C				
µF	Code	1.8V (x)	2.5V (e)	4V (G)	6.3V (J)	10V (A)
4.7	475				A	A
6.8	685				A	A
10	106				A	A/B
15	156			A	A/B	A/B
22	226		A	A/B	A/B	B/C/B(700)
33	336		A/B	A/B	B/C/B(700)	C
47	476	A	A/B	A/B/C	B/C	C
68	686	B	B/C	B/C	B/C	C
100	107	B/C	B/C	B/C/B(250)	B/C/D/B(400)	D/D(150)
150	157	C	C	C/D	C/D	
220	227	C	C	C/D	C/D/E	
330	337	C	C/D	D	D/E	
470	477		D/E	D/E	E/V/E(75)	
680	687		E	E/V		
1000	108		V	V		

LOW PROFILE NIOBIUM OXIDE CAPACITANCE AND RATED VOLTAGE RANGE (LETTER DENOTES CASE SIZE)

Capacitance		Rated Voltage DC (V _R) to 85°C				
µF	Code	1.8V (x)	2.5V (e)	4V (G)	6.3V (J)	10V (A)
1.0	105					
1.5	155					
2.2	225					P
3.3	335					P
4.7	475				P/S	T
6.8	685			P/S	P/S/T	T
10	106		P/S	P/S/T	P/T	T
15	156	P/S	P/S/T	P/T		
22	226	P/S/T	P/T	T	T	
33	336	T	T	T	W	
47	476	T	T	W	W	
68	686		W	W	X/Y	
100	107	W	W	W/X	F/Y	
150	157		X	Y	F/Y	
220	227	X	Y	F/Y	Y	
330	337	Y	Y	Y		
470	477	Y				

Released ratings (ESR ratings in mOhms in parentheses)

Note: Voltage ratings are minimum values. AVX reserves the right to supply higher voltage ratings in the same case size, to the same reliability standards

OxiCap® NOJ Series



Standard and Low Profile Niobium Oxide Capacitors

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL Max. (µA)	DF Max. (%)	ESR Max. @ 100kHz (Ω)	MSL	100kHz RMS Current (A)		
											25°C	85°C	105°C
1.8 Volt @ 85°C													
NOJP156M001#WJ	P	15	1.8	85	1.2	105	1.0	10	4.1	1	0.133	0.119	0.053
NOJS156M001#WJ	S	15	1.8	85	1.2	105	1.0	6	2	1	0.197	0.178	0.079
NOJP226M001#WJ	P	22	1.8	85	1.2	105	1.0	10	3.8	1	0.138	0.124	0.055
NOJS226M001#WJ	S	22	1.8	85	1.2	105	1.0	8	1.9	1	0.203	0.182	0.081
NOJT226M001#WJ	T	22	1.8	85	1.2	105	1.0	6	1.8	1	0.231	0.208	0.092
NOJT336M001#WJ	T	33	1.8	85	1.2	105	1.2	6	1.7	1	0.238	0.214	0.095
NOJA476M001#WJ	A	47	1.8	85	1.2	105	1.7	8	1.6	1	0.237	0.213	0.095
NOJB476M001#WJ	B	47	1.8	85	1.2	105	1.7	6	1.6	1	0.252	0.227	0.101
NOJT476M001#WJ	T	47	1.8	85	1.2	105	1.7	10	1.6	1	0.245	0.220	0.098
NOJB686M001#WJ	B	68	1.8	85	1.2	105	2.5	6	1.5	1	0.261	0.235	0.104
NOJB107M001#WJ	B	100	1.8	85	1.2	105	3.6	6	1.4	1	0.270	0.243	0.108
NOJC107M001#WJ	C	100	1.8	85	1.2	105	3.6	6	0.4	1	0.574	0.517	0.230
NOJW107M001#WJ	W	100	1.8	85	1.2	105	3.6	6	0.4	1	0.520	0.468	0.208
NOJC157M001#WJ	C	150	1.8	85	1.2	105	5.4	8	0.4	1	0.574	0.517	0.230
NOJC227M001#WJ	C	220	1.8	85	1.2	105	8.0	8	0.4	1	0.574	0.517	0.230
NOJX227M001#WJ	X	220	1.8	85	1.2	105	8.0	8	0.4	3	0.548	0.493	0.219
NOJC337M001#WJ	C	330	1.8	85	1.2	105	11.9	8	0.3	1	0.663	0.597	0.265
NOJY337M001#WJ	Y	330	1.8	85	1.2	105	11.9	8	0.3	3	0.707	0.636	0.283
NOJY477M001#WJ	Y	470	1.8	85	1.2	105	17.0	8	0.3	3	0.707	0.636	0.283
2.5 Volt @ 85°C													
NOJP106M002#WJ	P	10	2.5	85	1.7	105	1.0	6	4.5	1	0.126	0.114	0.051
NOJS106M002#WJ	S	10	2.5	85	1.7	105	1.0	6	2.2	1	0.188	0.169	0.075
NOJP156M002#WJ	P	15	2.5	85	1.7	105	1.0	6	4	1	0.134	0.121	0.054
NOJS156M002#WJ	S	15	2.5	85	1.7	105	1.0	8	2	1	0.197	0.178	0.079
NOJT156M002#WJ	T	15	2.5	85	1.7	105	1.0	6	2	1	0.219	0.197	0.088
NOJA226M002#WJ	A	22	2.5	85	1.7	105	1.1	6	1.9	1	0.218	0.196	0.087
NOJP226M002#WJ	P	22	2.5	85	1.7	105	1.1	10	3.8	1	0.138	0.124	0.055
NOJT226M002#WJ	T	22	2.5	85	1.7	105	1.1	6	1.9	1	0.225	0.202	0.090
NOJA336M002#WJ	A	33	2.5	85	1.7	105	1.7	6	1.7	1	0.230	0.207	0.092
NOJB336M002#WJ	B	33	2.5	85	1.7	105	1.7	6	1.7	1	0.245	0.220	0.098
NOJT336M002#WJ	T	33	2.5	85	1.7	105	1.7	6	1.7	1	0.238	0.214	0.095
NOJA476M002#WJ	A	47	2.5	85	1.7	105	2.4	8	1.6	1	0.237	0.213	0.095
NOJB476M002#WJ	B	47	2.5	85	1.7	105	2.4	6	1.6	1	0.252	0.227	0.101
NOJT476M002#WJ	T	47	2.5	85	1.7	105	2.4	10	1.6	1	0.245	0.220	0.098
NOJB686M002#WJ	B	68	2.5	85	1.7	105	3.4	6	1.5	1	0.261	0.235	0.104
NOJC686M002#WJ	C	68	2.5	85	1.7	105	3.4	6	0.5	1	0.514	0.462	0.206
NOJW686M002#WJ	W	68	2.5	85	1.7	105	3.4	6	0.4	1	0.520	0.468	0.208
NOJB107M002#WJ	B	100	2.5	85	1.7	105	5.0	6	1.4	1	0.270	0.243	0.108
NOJC107M002#WJ	C	100	2.5	85	1.7	105	5.0	6	0.4	1	0.574	0.517	0.230
NOJW107M002#WJ	W	100	2.5	85	1.7	105	5.0	6	0.4	1	0.520	0.468	0.208
NOJC157M002#WJ	C	150	2.5	85	1.7	105	7.5	6	0.4	1	0.574	0.517	0.230
NOJX157M002#WJ	X	150	2.5	85	1.7	105	7.5	6	0.4	3	0.548	0.493	0.219
NOJC227M002#WJ	C	220	2.5	85	1.7	105	11.0	8	0.4	1	0.574	0.517	0.230
NOJY227M002#WJ	Y	220	2.5	85	1.7	105	11.0	8	0.4	3	0.612	0.551	0.245
NOJC337M002#WJ	C	330	2.5	85	1.7	105	16.5	10	0.3	1	0.663	0.597	0.265
NOJD337M002#WJ	D	330	2.5	85	1.7	105	16.5	10	0.3	3	0.775	0.697	0.310
NOJY337M002#WJ	Y	330	2.5	85	1.7	105	16.5	10	0.3	3	0.707	0.636	0.283
NOJD477M002#WJ	D	470	2.5	85	1.7	105	23.5	12	0.3	3	0.775	0.697	0.310
NOJE477M002#WJ	E	470	2.5	85	1.7	105	23.5	10	0.3	3	0.812	0.731	0.325
NOJE687M002#WJ	E	680	2.5	85	1.7	105	34.0	14	0.3	3	0.812	0.731	0.325
NOJV108M002#WJ	V	1000	2.5	85	1.7	105	50.0	16	0.3	3	1.000	0.900	0.400
4 Volt @ 85°C													
NOJP685M004#WJ	P	6.8	4	85	2.7	105	1.0	6	5.3	1	0.117	0.105	0.047
NOJS685M004#WJ	S	6.8	4	85	2.7	105	1.0	6	2.6	1	0.173	0.156	0.069
NOJP106M004#WJ	P	10	4	85	2.7	105	1.0	20	4.5	1	0.126	0.114	0.051
NOJS106M004#WJ	S	10	4	85	2.7	105	1.0	8	2.2	1	0.188	0.169	0.075
NOJT106M004#WJ	T	10	4	85	2.7	105	1.0	6	2.2	1	0.209	0.188	0.084
NOJA156M004#WJ	A	15	4	85	2.7	105	1.2	6	2	1	0.212	0.191	0.085
NOJP156M004#WJ	P	15	4	85	2.7	105	1.2	10	4.1	1	0.133	0.119	0.053
NOJT156M004#WJ	T	15	4	85	2.7	105	1.2	6	2	1	0.219	0.197	0.088
NOJA226M004#WJ	A	22	4	85	2.7	105	1.8	6	1.9	1	0.218	0.196	0.087
NOJB226M004#WJ	B	22	4	85	2.7	105	1.8	6	1.9	1	0.232	0.209	0.093
NOJT226M004#WJ	T	22	4	85	2.7	105	1.8	6	1.8	1	0.231	0.208	0.092
NOJA336M004#WJ	A	33	4	85	2.7	105	2.6	10	1.7	1	0.230	0.207	0.092
NOJB336M004#WJ	B	33	4	85	2.7	105	2.6	6	1.7	1	0.245	0.220	0.098
NOJT336M004#WJ	T	33	4	85	2.7	105	2.6	14	2	1	0.219	0.197	0.088
NOJA476M004#WJ	A	47	4	85	2.7	105	3.8	18	2.2	1	0.202	0.182	0.081
NOJB476M004#WJ	B	47	4	85	2.7	105	3.8	6	1.6	1	0.252	0.227	0.101
NOJC476M004#WJ	C	47	4	85	2.7	105	3.8	6	0.5	1	0.514	0.462	0.206
NOJW476M004#WJ	W	47	4	85	2.7	105	3.8	6	0.5	1	0.465	0.418	0.186

OxiCap® NOJ Series



Standard and Low Profile Niobium Oxide Capacitors

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL Max. (µA)	DF Max. (%)	ESR Max. @ 100kHz (Ω)	MSL	100kHz RMS Current (A)		
											25°C	85°C	105°C
NOJB686M004#WJ	B	68	4	85	2.7	105	5.4	6	1.5	1	0.261	0.235	0.104
NOJC686M004#WJ	C	68	4	85	2.7	105	5.4	6	0.5	1	0.514	0.462	0.206
NOJW686M004#WJ	W	68	4	85	2.7	105	5.4	6	0.4	1	0.520	0.468	0.208
NOJB107M004#WJ	B	100	4	85	2.7	105	8.0	16	1.4	1	0.270	0.243	0.108
NOJB107M004#WB	B	100	4	85	2.7	105	8.0	16	0.25	3	0.639	0.575	0.255
NOJC107M004#WJ	C	100	4	85	2.7	105	8.0	6	0.4	1	0.574	0.517	0.230
NOJW107M004#WJ	W	100	4	85	2.7	105	8.0	8	0.4	1	0.520	0.468	0.208
NOJX107M004#WJ	X	100	4	85	2.7	105	8.0	6	0.4	3	0.548	0.493	0.219
NOJC157M004#WJ	C	150	4	85	2.7	105	12.0	6	0.4	1	0.574	0.517	0.230
NOJD157M004#WJ	D	150	4	85	2.7	105	12.0	6	0.3	3	0.775	0.697	0.310
NOJY157M004#WJ	Y	150	4	85	2.7	105	12.0	6	0.4	3	0.612	0.551	0.245
NOJC227M004#WJ	C	220	4	85	2.7	105	17.6	8	0.4	1	0.574	0.517	0.230
NOJD227M004#WJ	D	220	4	85	2.7	105	17.6	8	0.4	3	0.671	0.604	0.268
NOJF227M004#WJ	F	220	4	85	2.7	105	17.6	10	0.4	1	0.548	0.493	0.219
NOJY227M004#WJ	Y	220	4	85	2.7	105	17.6	10	0.4	3	0.612	0.551	0.245
NOJD337M004#WJ	D	330	4	85	2.7	105	26.4	8	0.3	3	0.775	0.697	0.310
NOJY337M004#WJ	Y	330	4	85	2.7	105	26.4	12	0.3	3	0.707	0.636	0.283
NOJD477M004#WJ	D	470	4	85	2.7	105	37.6	12	0.3	3	0.775	0.697	0.310
NOJE477M004#WJ	E	470	4	85	2.7	105	37.6	12	0.3	3	0.812	0.731	0.325
NOJE687M004#WJ	E	680	4	85	2.7	105	54.4	14	0.3	3	0.812	0.731	0.325
NOJV687M004#WJ	V	680	4	85	2.7	105	54.4	14	0.3	3	1.000	0.900	0.400
NOJV108M004#WJ	V	1000	4	85	2.7	105	80.0	18	0.3	3	1.000	0.900	0.400
6.3 Volt @ 85°C													
NOJA475M006#WJ	A	4.7	6.3	85	4	105	1.1	6	3.2	1	0.168	0.151	0.067
NOJP475M006#WJ	P	4.7	6.3	85	4	105	1.0	6	6.1	1	0.109	0.098	0.043
NOJS475M006#WJ	S	4.7	6.3	85	4	105	1.0	6	3.2	1	0.156	0.141	0.062
NOJA685M006#WJ	A	6.8	6.3	85	4	105	1.1	6	2.6	1	0.186	0.167	0.074
NOJP685M006#WJ	P	6.8	6.3	85	4	105	1.0	10	5.2	1	0.118	0.106	0.047
NOJS685M006#WJ	S	6.8	6.3	85	4	105	1.0	8	2.7	1	0.170	0.153	0.068
NOJT685M006#WJ	T	6.8	6.3	85	4	105	1.0	6	2.6	1	0.192	0.173	0.077
NOJA106M006#WJ	A	10	6.3	85	4	105	1.2	6	2.2	1	0.202	0.182	0.081
NOJP106M006#WJ	P	10	6.3	85	4	105	1.2	10	4.5	1	0.126	0.114	0.051
NOJT106M006#WJ	T	10	6.3	85	4	105	1.2	6	2.2	1	0.209	0.188	0.084
NOJA156M006#WJ	A	15	6.3	85	4	105	1.8	8	2	1	0.212	0.191	0.085
NOJB156M006#WJ	B	15	6.3	85	4	105	1.8	6	2	1	0.226	0.203	0.090
NOJA226M006#WJ	A	22	6.3	85	4	105	2.6	8	1.8	1	0.224	0.201	0.089
NOJB226M006#WJ	B	22	6.3	85	4	105	2.6	6	1.9	1	0.232	0.209	0.093
NOJT226M006#WJ	T	22	6.3	85	4	105	2.6	8	1.8	1	0.231	0.208	0.092
NOJB336M006#WJ	B	33	6.3	85	4	105	4.0	6	1.7	1	0.245	0.220	0.098
NOJB336M006#WB	B	33	6.3	85	4	105	4.0	6	0.7	3	0.382	0.344	0.153
NOJC336M006#WJ	C	33	6.3	85	4	105	4.0	6	0.5	1	0.514	0.462	0.206
NOJW336M006#WJ	W	33	6.3	85	4	105	4.0	6	0.5	1	0.465	0.418	0.186
NOJB476M006#WJ	B	47	6.3	85	4	105	5.6	6	0.8	1	0.357	0.321	0.143
NOJC476M006#WJ	C	47	6.3	85	4	105	5.7	6	0.5	1	0.514	0.462	0.206
NOJW476M006#WJ	W	47	6.3	85	4	105	5.7	6	0.5	1	0.465	0.418	0.186
NOJB686M006#WJ	B	68	6.3	85	4	105	8.2	20	1.5	1	0.261	0.235	0.104
NOJC686M006#WJ	C	68	6.3	85	4	105	8.2	6	0.5	1	0.514	0.462	0.206
NOJX686M006#WJ	X	68	6.3	85	4	105	8.2	6	0.5	3	0.490	0.441	0.196
NOJY686M006#WJ	Y	68	6.3	85	4	105	8.2	6	0.5	3	0.548	0.493	0.219
NOJB107M006#WJ	B	100	6.3	85	4	105	60.0	20	1.7	1	0.245	0.220	0.098
NOJB107M006#WB	B	100	6.3	85	4	105	60.0	20	0.4	3	0.505	0.454	0.202
NOJC107M006#WJ	C	100	6.3	85	4	105	12.0	8	0.4	1	0.574	0.517	0.230
NOJD107M006#WJ	D	100	6.3	85	4	105	12.0	6	0.4	3	0.671	0.604	0.268
NOJF107M006#WJ	F	100	6.3	85	4	105	12	8	0.4	1	0.548	0.493	0.219
NOJY107M006#WJ	Y	100	6.3	85	4	105	12.0	6	0.4	3	0.612	0.551	0.245
NOJC157M006#WJ	C	150	6.3	85	4	105	18.0	6	0.4	1	0.574	0.517	0.230
NOJD157M006#WJ	D	150	6.3	85	4	105	18.0	6	0.4	3	0.671	0.604	0.268
NOJF157M006#WJ	F	150	6.3	85	4	105	18.0	8	0.4	1	0.548	0.493	0.219
NOJY157M006#WJ	Y	150	6.3	85	4	105	18.0	6	0.4	3	0.612	0.551	0.245
NOJC227M006#WJ	C	220	6.3	85	4	105	26.4	14	0.4	1	0.574	0.517	0.230
NOJD227M006#WJ	D	220	6.3	85	4	105	26.4	8	0.4	3	0.671	0.604	0.268
NOJE227M006#WJ	E	220	6.3	85	4	105	26.4	12	0.4	3	0.704	0.633	0.281
NOJY227M006#WJ	Y	220	6.3	85	4	105	26.4	10	0.4	3	0.612	0.551	0.245
NOJD337M006#WJ	D	330	6.3	85	4	105	39.6	10	0.3	3	0.775	0.697	0.310
NOJE337M006#WJ	E	330	6.3	85	4	105	39.6	12	0.3	3	0.812	0.731	0.325
NOJE477M006#WJ	E	470	6.3	85	4	105	56.4	16	0.3	3	0.812	0.731	0.325
NOJE477M006#WB	E	470	6.3	85	4	105	56.4	16	0.075	3	1.625	1.462	0.650
NOJV477M006#WJ	V	470	6.3	85	4	105	56.4	14	0.3	3	1.000	0.900	0.400

OxiCap® NOJ Series



Standard and Low Profile Niobium Oxide Capacitors

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL Max. (µA)	DF Max. (%)	ESR Max. @ 100kHz (Ω)	MSL	100kHz RMS Current (A)		
											25°C	85°C	105°C
10 Volt @ 85°C													
NOJP225M010#WJ	P	2.2	10	85	7	105	1.0	8	8.3	1	0.093	0.084	0.037
NOJP335M010#WJ	P	3.3	10	85	7	105	1.0	8	7	1	0.101	0.091	0.041
NOJA475M010#WJ	A	4.7	10	85	7	105	1.0	6	3.1	1	0.170	0.153	0.068
NOJT475M010#WJ	T	4.7	10	85	7	105	1.0	6	3.1	1	0.176	0.158	0.070
NOJA685M010#WJ	A	6.8	10	85	7	105	1.4	6	2.6	1	0.186	0.167	0.074
NOJT685M010#WJ	T	6.8	10	85	7	105	1.4	6	2.6	1	0.192	0.173	0.077
NOJA106M010#WJ	A	10	10	85	7	105	2.0	6	2.2	1	0.202	0.182	0.081
NOJB106M010#WJ	B	10	10	85	7	105	2.0	6	1	1	0.319	0.287	0.128
NOJT106M010#WJ	T	10	10	85	7	105	2.0	6	2.2	1	0.209	0.188	0.084
NOJA156M010#WJ	A	15	10	85	7	105	3.0	6	2	1	0.212	0.191	0.085
NOJB156M010#WJ	B	15	10	85	7	105	3.0	6	2	1	0.226	0.203	0.090
NOJB226M010#WJ	B	22	10	85	7	105	4.4	6	1.8	1	0.238	0.214	0.095
NOJB226M010#WB	B	22	10	85	7	105	4.4	6	0.7	3	0.382	0.344	0.153
NOJC226M010#WJ	C	22	10	85	7	105	4.4	6	0.5	1	0.514	0.462	0.206
NOJC336M010#WJ	C	33	10	85	7	105	6.6	6	0.5	1	0.514	0.462	0.206
NOJC476M010#WJ	C	47	10	85	7	105	9.4	6	0.4	1	0.574	0.517	0.230
NOJC686M010#WJ	C	68	10	85	7	105	13.6	12	0.5	1	0.514	0.462	0.206
NOJD107M010#WJ	D	100	10	85	7	105	20.0	12	0.4	3	0.671	0.604	0.268
NOJD107M010#WB	D	100	10	85	7	105	20.0	12	0.15	3	1.095	0.986	0.438

Moisture Sensitivity Level (MSL) is defined according to J-STD-020.

All technical data relates to an ambient temperature of +25°C. Capacitance and DF are measured at 120Hz, 0.5V RMS with a maximum DC bias of 2.2 volts. DCL is measured at rated voltage after 5 minutes.

The EIA & CECC standards for capacitors allow an ESR movement to 1.25 times catalog limit post mounting.

For typical weight and composition see page 222.

NOTE: AVX reserves the right to supply higher voltage ratings in the same case size, to the same reliability standards.

Standard and Low Profile Niobium Oxide Capacitors

QUALIFICATION TABLE

TEST	NOJ series (Temperature range -55°C to +105°C)										
	Condition			Characteristics							
Endurance	Apply rated voltage (UR) at 85±2°C and / or category voltage (Uc) at 105±2°C for 2000 +48/-0 hours through a circuit impedance of ≤0.1Ω/V. Stabilize at room temperature for 1-2 hours before measuring.			Visual examination	no visible damage						
				DCL	initial limit						
				ΔC/C	within ±10% of initial value						
				DF	initial limit						
				ESR	1.25 x initial limit						
Storage Life	Store at 105°C, no voltage applied, for 2000 +48/-0 hours. Stabilize at room temperature for 1-2 hours before measuring.			Visual examination	no visible damage						
				DCL	initial limit						
				ΔC/C	within ±10% of initial value						
				DF	initial limit						
				ESR	1.25 x initial limit						
Humidity	Store at 65±2°C and 95±2% relative humidity for 500 +48/-0 hours, with no applied voltage. Stabilize at room temperature and humidity for 1-2 hours before measuring.			Visual examination	no visible damage						
				DCL	1.5 x initial limit						
				ΔC/C	within ±10% of initial value						
				DF	1.2 x initial limit						
				ESR	1.25 x initial limit						
Biased Humidity	Apply rated voltage (UR) 85±2°C, at 85% relative humidity for 1000 +48/-0 hours. Stabilize at room temperature and humidity for 1-2 hours before measuring.			Visual examination	no visible damage						
				DCL	2 x initial limit						
				ΔC/C	within ±10% of initial value						
				DF	1.2 x initial limit						
				ESR	1.25 x initial limit						
Temperature Stability	Step	Temperature°C	Duration(min)		+20°C	-55°C	+20°C	+85°C	+105°C	+20°C	
	1	+20±2	15	DCL	IL*	n/a	IL*	10 x IL*	12.5 x IL*	IL*	
	2	-55+0/-3	15	ΔC/C	n/a	+0/-10%	±5%	+10/-0%	+12/-0%	±5%	
	3	+20±2	15	DF	IL*	1.5 x IL*	IL*	1.5 x IL*	2 x IL*	IL*	
	4	+85+3/-0	15	ESR	1.25 x IL*	2.5 x IL*	1.25 x IL*	1.25 x IL*	1.25 x IL*	1.25 x IL*	
	5	+105+3/-0	15								
	6	+20±2	15								
Surge Voltage	Apply 1.3x category voltage (Uc) at 105 +3/-0°C for 1,000 cycles of duration 6 mins. (30 secs. charge, 5 min. 30 sec. discharge) through a charge / discharge resistance of 1000±100Ω			Visual examination	no visible damage						
				DCL	initial limit						
				ΔC/C	within ±5% of initial value						
				DF	initial limit						
				ESR	1.25 x initial limit						
Mechanical Shock	MIL-STD-202, Method 213, Condition F			Visual examination	no visible damage						
				DCL	initial limit						
				ΔC/C	within ±5% of initial value						
				DF	initial limit						
				ESR	1.25 x initial limit						
Vibration	MIL-STD-202, Method 204, Condition D			Visual examination	no visible damage						
				DCL	initial limit						
				ΔC/C	within ±5% of initial value						
				DF	initial limit						
				ESR	1.25 x initial limit						

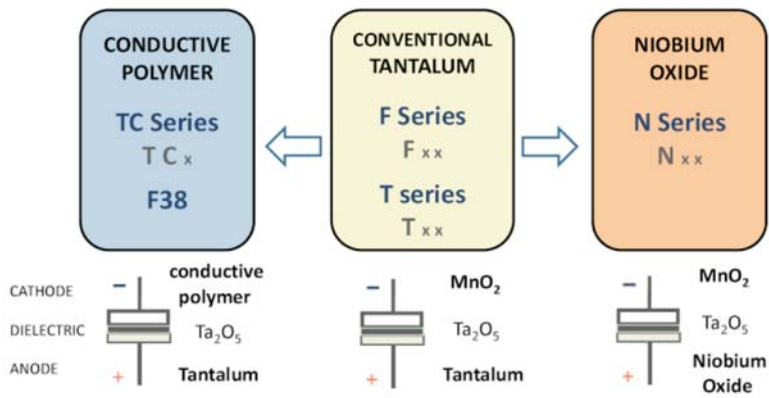
*Initial Limit

OxiCap® NOJ Series

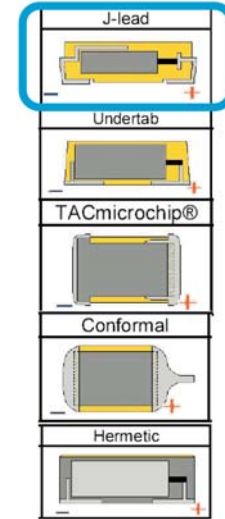


Standard and Low Profile Niobium Oxide Capacitors

AVX SOLID ELECTROLYTIC CAPACITOR ROADMAP



FIVE CAPACITOR CONSTRUCTION STYLES



SERIES LINE UP: NIOBIUM OXIDE OxiCap® CAPACITORS

