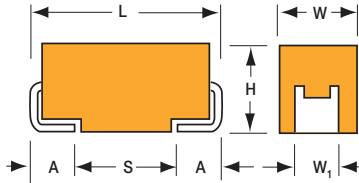
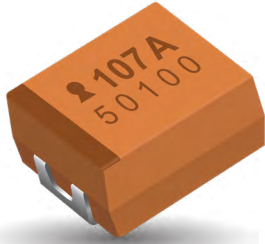


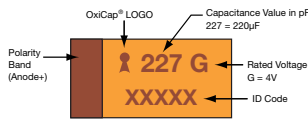
OxiCap® NOJ Series

Standard and Low Profile Niobium Oxide Capacitors

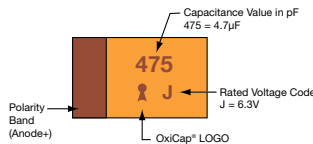


MARKING

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 table 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 (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
- 100% Surge Current Tested
- 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

APPLICATIONS

- Automotive, Avionics, Digital, FPGA, Industrial Low Voltage Control Circuits
- Downsized Industrial and Automotive DC/DC Converters



Elektra Award
2005

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 (0.122)	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)	0.80 (0.031)	1.40 (0.055)
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 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

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)	100kHz RMS Current (A)			MSL
										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	0.133	0.119	0.053	1
NOJS156M001#WJ	S	15	1.8	85	1.2	105	1.0	6	2	0.197	0.178	0.079	1
NOJP226M001#WJ	P	22	1.8	85	1.2	105	1.0	10	3.8	0.138	0.124	0.055	1
NOJS226M001#WJ	S	22	1.8	85	1.2	105	1.0	8	1.9	0.203	0.182	0.081	1
NOJT226M001#WJ	T	22	1.8	85	1.2	105	1.0	6	1.8	0.231	0.208	0.092	1
NOJT336M001#WJ	T	33	1.8	85	1.2	105	1.2	6	1.7	0.238	0.214	0.095	1
NOJA476M001#WJ	A	47	1.8	85	1.2	105	1.7	8	1.6	0.237	0.213	0.095	1
NOJB476M001#WJ	B	47	1.8	85	1.2	105	1.7	6	1.6	0.252	0.227	0.101	1
NOJT476M001#WJ	T	47	1.8	85	1.2	105	1.7	10	1.6	0.245	0.220	0.098	1
NOJB686M001#WJ	B	68	1.8	85	1.2	105	2.5	6	1.5	0.261	0.235	0.104	1
NOJB107M001#WJ	B	100	1.8	85	1.2	105	3.6	6	1.4	0.270	0.243	0.108	1
NOJC107M001#WJ	C	100	1.8	85	1.2	105	3.6	6	0.4	0.574	0.517	0.230	1
NOJW107M001#WJ	W	100	1.8	85	1.2	105	3.6	6	0.4	0.520	0.468	0.208	1
NOJC157M001#WJ	C	150	1.8	85	1.2	105	5.4	8	0.4	0.574	0.517	0.230	1
NOJC227M001#WJ	C	220	1.8	85	1.2	105	8.0	8	0.4	0.574	0.517	0.230	1
NOJX227M001#WJ	X	220	1.8	85	1.2	105	8.0	8	0.4	0.548	0.493	0.219	3
NOJC337M001#WJ	C	330	1.8	85	1.2	105	11.9	8	0.3	0.663	0.597	0.265	1
NOJY337M001#WJ	Y	330	1.8	85	1.2	105	11.9	8	0.3	0.707	0.636	0.283	3
NOJY477M001#WJ	Y	470	1.8	85	1.2	105	17.0	8	0.3	0.707	0.636	0.283	3
2.5 Volt @ 85°C													
NOJP106M002#WJ	P	10	2.5	85	1.7	105	1.0	6	4.5	0.126	0.114	0.051	1
NOJS106M002#WJ	S	10	2.5	85	1.7	105	1.0	6	2.2	0.188	0.169	0.075	1
NOJP156M002#WJ	P	15	2.5	85	1.7	105	1.0	6	4	0.134	0.121	0.054	1
NOJS156M002#WJ	S	15	2.5	85	1.7	105	1.0	8	2	0.197	0.178	0.079	1
NOJT156M002#WJ	T	15	2.5	85	1.7	105	1.0	6	2	0.219	0.197	0.088	1
NOJA226M002#WJ	A	22	2.5	85	1.7	105	1.1	6	1.9	0.218	0.196	0.087	1
NOJP226M002#WJ	P	22	2.5	85	1.7	105	1.1	10	3.8	0.138	0.124	0.055	1
NOJT226M002#WJ	T	22	2.5	85	1.7	105	1.1	6	1.9	0.225	0.202	0.090	1
NOJA336M002#WJ	A	33	2.5	85	1.7	105	1.7	6	1.7	0.230	0.207	0.092	1
NOJB336M002#WJ	B	33	2.5	85	1.7	105	1.7	6	1.7	0.245	0.220	0.098	1
NOJT336M002#WJ	T	33	2.5	85	1.7	105	1.7	6	1.7	0.238	0.214	0.095	1
NOJA476M002#WJ	A	47	2.5	85	1.7	105	2.4	8	1.6	0.237	0.213	0.095	1
NOJB476M002#WJ	B	47	2.5	85	1.7	105	2.4	6	1.6	0.252	0.227	0.101	1
NOJT476M002#WJ	T	47	2.5	85	1.7	105	2.4	10	1.6	0.245	0.220	0.098	1
NOJB686M002#WJ	B	68	2.5	85	1.7	105	3.4	6	1.5	0.261	0.235	0.104	1
NOJC686M002#WJ	C	68	2.5	85	1.7	105	3.4	6	0.5	0.514	0.462	0.206	1
NOJW686M002#WJ	W	68	2.5	85	1.7	105	3.4	6	0.4	0.520	0.468	0.208	1
NOJB107M002#WJ	B	100	2.5	85	1.7	105	5.0	6	1.4	0.270	0.243	0.108	1
NOJC107M002#WJ	C	100	2.5	85	1.7	105	5.0	6	0.4	0.574	0.517	0.230	1
NOJW107M002#WJ	W	100	2.5	85	1.7	105	5.0	6	0.4	0.520	0.468	0.208	1
NOJC157M002#WJ	C	150	2.5	85	1.7	105	7.5	6	0.4	0.574	0.517	0.230	1
NOJX157M002#WJ	X	150	2.5	85	1.7	105	7.5	6	0.4	0.548	0.493	0.219	3
NOJC227M002#WJ	C	220	2.5	85	1.7	105	11.0	8	0.4	0.574	0.517	0.230	1
NOJY227M002#WJ	Y	220	2.5	85	1.7	105	11.0	8	0.4	0.612	0.551	0.245	3
NOJC337M002#WJ	C	330	2.5	85	1.7	105	16.5	10	0.3	0.663	0.597	0.265	1
NOJD337M002#WJ	D	330	2.5	85	1.7	105	16.5	10	0.3	0.775	0.697	0.310	3
NOJY337M002#WJ	Y	330	2.5	85	1.7	105	16.5	10	0.3	0.707	0.636	0.283	3
NOJD477M002#WJ	D	470	2.5	85	1.7	105	23.5	12	0.3	0.775	0.697	0.310	3
NOJE477M002#WJ	E	470	2.5	85	1.7	105	23.5	10	0.3	0.812	0.731	0.325	3
NOJE687M002#WJ	E	680	2.5	85	1.7	105	34.0	14	0.3	0.812	0.731	0.325	3
NOJV108M002#WJ	V	1000	2.5	85	1.7	105	50.0	16	0.3	1.000	0.900	0.400	3
4 Volt @ 85°C													
NOJP685M004#WJ	P	6.8	4	85	2.7	105	1.0	6	5.3	0.117	0.105	0.047	1
NOJS685M004#WJ	S	6.8	4	85	2.7	105	1.0	6	2.6	0.173	0.156	0.069	1
NOJP106M004#WJ	P	10	4	85	2.7	105	1.0	20	4.5	0.126	0.114	0.051	1
NOJS106M004#WJ	S	10	4	85	2.7	105	1.0	8	2.2	0.188	0.169	0.075	1
NOJT106M004#WJ	T	10	4	85	2.7	105	1.0	6	2.2	0.209	0.188	0.084	1
NOJA156M004#WJ	A	15	4	85	2.7	105	1.2	6	2	0.212	0.191	0.085	1
NOJP156M004#WJ	P	15	4	85	2.7	105	1.2	10	4.1	0.133	0.119	0.053	1
NOJT156M004#WJ	T	15	4	85	2.7	105	1.2	6	2	0.219	0.197	0.088	1
NOJA226M004#WJ	A	22	4	85	2.7	105	1.8	6	1.9	0.218	0.196	0.087	1
NOJB226M004#WJ	B	22	4	85	2.7	105	1.8	6	1.9	0.232	0.209	0.093	1
NOJT226M004#WJ	T	22	4	85	2.7	105	1.8	6	1.8	0.231	0.208	0.092	1
NOJA336M004#WJ	A	33	4	85	2.7	105	2.6	10	1.7	0.230	0.207	0.092	1
NOJB336M004#WJ	B	33	4	85	2.7	105	2.6	6	1.7	0.245	0.220	0.098	1
NOJT336M004#WJ	T	33	4	85	2.7	105	2.6	14	2	0.219	0.197	0.088	1
NOJA476M004#WJ	A	47	4	85	2.7	105	3.8	18	2.2	0.202	0.182	0.081	1
NOJB476M004#WJ	B	47	4	85	2.7	105	3.8	6	1.6	0.252	0.227	0.101	1
NOJC476M004#WJ	C	47	4	85	2.7	105	3.8	6	0.5	0.514	0.462	0.206	1
NOJW476M004#WJ	W	47	4	85	2.7	105	3.8	6	0.5	0.465	0.418	0.186	1

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)	100kHz RMS Current (A)			MSL
										25°C	85°C	105°C	
NOJB686M004#WJ	B	68	4	85	2.7	105	5.4	6	1.5	0.261	0.235	0.104	1
NOJC686M004#WJ	C	68	4	85	2.7	105	5.4	6	0.5	0.514	0.462	0.206	1
NOJW686M004#WJ	W	68	4	85	2.7	105	5.4	6	0.4	0.520	0.468	0.208	1
NOJB107M004#WJ	B	100	4	85	2.7	105	8.0	16	1.4	0.270	0.243	0.108	1
NOJB107M004#WB	B	100	4	85	2.7	105	8.0	16	0.25	0.639	0.575	0.255	3
NOJC107M004#WJ	C	100	4	85	2.7	105	8.0	6	0.4	0.574	0.517	0.230	1
NOJW107M004#WJ	W	100	4	85	2.7	105	8.0	8	0.4	0.520	0.468	0.208	1
NOJX107M004#WJ	X	100	4	85	2.7	105	8.0	6	0.4	0.548	0.493	0.219	3
NOJC157M004#WJ	C	150	4	85	2.7	105	12.0	6	0.4	0.574	0.517	0.230	1
NOJD157M004#WJ	D	150	4	85	2.7	105	12.0	6	0.3	0.775	0.697	0.310	3
NOJY157M004#WJ	Y	150	4	85	2.7	105	12.0	6	0.4	0.612	0.551	0.245	3
NOJC227M004#WJ	C	220	4	85	2.7	105	17.6	8	0.4	0.574	0.517	0.230	1
NOJD227M004#WJ	D	220	4	85	2.7	105	17.6	8	0.4	0.671	0.604	0.268	3
NOJF227M004#WJ	F	220	4	85	2.7	105	17.6	10	0.4	0.548	0.493	0.219	1
NOJY227M004#WJ	Y	220	4	85	2.7	105	17.6	10	0.4	0.612	0.551	0.245	3
NOJD337M004#WJ	D	330	4	85	2.7	105	26.4	8	0.3	0.775	0.697	0.310	3
NOJY337M004#WJ	Y	330	4	85	2.7	105	26.4	12	0.3	0.707	0.636	0.283	3
NOJD477M004#WJ	D	470	4	85	2.7	105	37.6	12	0.3	0.775	0.697	0.310	3
NOJE477M004#WJ	E	470	4	85	2.7	105	37.6	12	0.3	0.812	0.731	0.325	3
NOJE687M004#WJ	E	680	4	85	2.7	105	54.4	14	0.3	0.812	0.731	0.325	3
NOJV687M004#WJ	V	680	4	85	2.7	105	54.4	14	0.3	1.000	0.900	0.400	3
NOJV108M004#WJ	V	1000	4	85	2.7	105	80.0	18	0.3	1.000	0.900	0.400	3
6.3 Volt @ 85°C													
NOJA475M006#WJ	A	4.7	6.3	85	4	105	1.1	6	3.2	0.168	0.151	0.067	1
NOJP475M006#WJ	P	4.7	6.3	85	4	105	1.0	6	6.1	0.109	0.098	0.043	1
NOJS475M006#WJ	S	4.7	6.3	85	4	105	1.0	6	3.2	0.156	0.141	0.062	1
NOJA685M006#WJ	A	6.8	6.3	85	4	105	1.1	6	2.6	0.186	0.167	0.074	1
NOJP685M006#WJ	P	6.8	6.3	85	4	105	1.0	10	5.2	0.118	0.106	0.047	1
NOJS685M006#WJ	S	6.8	6.3	85	4	105	1.0	8	2.7	0.170	0.153	0.068	1
NOJT685M006#WJ	T	6.8	6.3	85	4	105	1.0	6	2.6	0.192	0.173	0.077	1
NOJA106M006#WJ	A	10	6.3	85	4	105	1.2	6	2.2	0.202	0.182	0.081	1
NOJP106M006#WJ	P	10	6.3	85	4	105	1.2	10	4.5	0.126	0.114	0.051	1
NOJT106M006#WJ	T	10	6.3	85	4	105	1.2	6	2.2	0.209	0.188	0.084	1
NOJA156M006#WJ	A	15	6.3	85	4	105	1.8	8	2	0.212	0.191	0.085	1
NOJB156M006#WJ	B	15	6.3	85	4	105	1.8	6	2	0.226	0.203	0.090	1
NOJA226M006#WJ	A	22	6.3	85	4	105	2.6	8	1.8	0.224	0.201	0.089	1
NOJB226M006#WJ	B	22	6.3	85	4	105	2.6	6	1.9	0.232	0.209	0.093	1
NOJT226M006#WJ	T	22	6.3	85	4	105	2.6	8	1.8	0.231	0.208	0.092	1
NOJB336M006#WJ	B	33	6.3	85	4	105	4.0	6	1.7	0.245	0.220	0.098	1
NOJB336M006#WB	B	33	6.3	85	4	105	4.0	6	0.7	0.382	0.344	0.153	3
NOJC336M006#WJ	C	33	6.3	85	4	105	4.0	6	0.5	0.514	0.462	0.206	1
NOJW336M006#WJ	W	33	6.3	85	4	105	4.0	6	0.5	0.465	0.418	0.186	1
NOJB476M006#WJ	B	47	6.3	85	4	105	5.6	6	0.8	0.357	0.321	0.143	1
NOJC476M006#WJ	C	47	6.3	85	4	105	5.7	6	0.5	0.514	0.462	0.206	1
NOJW476M006#WJ	W	47	6.3	85	4	105	5.7	6	0.5	0.465	0.418	0.186	1
NOJB686M006#WJ	B	68	6.3	85	4	105	8.2	20	1.5	0.261	0.235	0.104	1
NOJC686M006#WJ	C	68	6.3	85	4	105	8.2	6	0.5	0.514	0.462	0.206	1
NOJX686M006#WJ	X	68	6.3	85	4	105	8.2	6	0.5	0.490	0.441	0.196	3
NOJY686M006#WJ	Y	68	6.3	85	4	105	8.2	6	0.5	0.548	0.493	0.219	3
NOJB107M006#WJ	B	100	6.3	85	4	105	60.0	20	1.7	0.245	0.220	0.098	1
NOJB107M006#WB	B	100	6.3	85	4	105	60.0	20	0.4	0.505	0.454	0.202	3
NOJC107M006#WJ	C	100	6.3	85	4	105	12.0	8	0.4	0.574	0.517	0.230	1
NOJD107M006#WJ	D	100	6.3	85	4	105	12.0	6	0.4	0.671	0.604	0.268	3
NOJF107M006#WJ	F	100	6.3	85	4	105	12	8	0.4	0.548	0.493	0.219	1
NOJY107M006#WJ	Y	100	6.3	85	4	105	12.0	6	0.4	0.612	0.551	0.245	3
NOJC157M006#WJ	C	150	6.3	85	4	105	18.0	6	0.4	0.574	0.517	0.230	1
NOJD157M006#WJ	D	150	6.3	85	4	105	18.0	6	0.4	0.671	0.604	0.268	3
NOJF157M006#WJ	F	150	6.3	85	4	105	18.0	8	0.4	0.548	0.493	0.219	1
NOJY157M006#WJ	Y	150	6.3	85	4	105	18.0	6	0.4	0.612	0.551	0.245	3
NOJC227M006#WJ	C	220	6.3	85	4	105	26.4	14	0.4	0.574	0.517	0.230	1
NOJD227M006#WJ	D	220	6.3	85	4	105	26.4	8	0.4	0.671	0.604	0.268	3
NOJE227M006#WJ	E	220	6.3	85	4	105	26.4	12	0.4	0.704	0.633	0.281	3
NOJY227M006#WJ	Y	220	6.3	85	4	105	26.4	10	0.4	0.612	0.551	0.245	3
NOJD337M006#WJ	D	330	6.3	85	4	105	39.6	10	0.3	0.775	0.697	0.310	3
NOJE337M006#WJ	E	330	6.3	85	4	105	39.6	12	0.3	0.812	0.731	0.325	3
NOJE477M006#WJ	E	470	6.3	85	4	105	56.4	16	0.3	0.812	0.731	0.325	3
NOJE477M006#WB	E	470	6.3	85	4	105	56.4	16	0.075	1.625	1.462	0.650	3
NOJV477M006#WJ	V	470	6.3	85	4	105	56.4	14	0.3	1.000	0.900	0.400	3

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)	100kHz RMS Current (A)			MSL
										25°C	85°C	105°C	
10 Volt @ 85°C													
NOJP225M010#WJ	P	2.2	10	85	7	105	1.0	8	8.3	0.093	0.084	0.037	1
NOJP335M010#WJ	P	3.3	10	85	7	105	1.0	8	7	0.101	0.091	0.041	1
NOJA475M010#WJ	A	4.7	10	85	7	105	1.0	6	3.1	0.170	0.153	0.068	1
NOJT475M010#WJ	T	4.7	10	85	7	105	1.0	6	3.1	0.176	0.158	0.070	1
NOJA685M010#WJ	A	6.8	10	85	7	105	1.4	6	2.6	0.186	0.167	0.074	1
NOJT685M010#WJ	T	6.8	10	85	7	105	1.4	6	2.6	0.192	0.173	0.077	1
NOJA106M010#WJ	A	10	10	85	7	105	2.0	6	2.2	0.202	0.182	0.081	1
NOJB106M010#WJ	B	10	10	85	7	105	2.0	6	1	0.319	0.287	0.128	1
NOJT106M010#WJ	T	10	10	85	7	105	2.0	6	2.2	0.209	0.188	0.084	1
NOJA156M010#WJ	A	15	10	85	7	105	3.0	6	2	0.212	0.191	0.085	1
NOJB156M010#WJ	B	15	10	85	7	105	3.0	6	2	0.226	0.203	0.090	1
NOJB226M010#WJ	B	22	10	85	7	105	4.4	6	1.8	0.238	0.214	0.095	1
NOJB226M010#WB	B	22	10	85	7	105	4.4	6	0.7	0.382	0.344	0.153	3
NOJC226M010#WJ	C	22	10	85	7	105	4.4	6	0.5	0.514	0.462	0.206	1
NOJC336M010#WJ	C	33	10	85	7	105	6.6	6	0.5	0.514	0.462	0.206	1
NOJC476M010#WJ	C	47	10	85	7	105	9.4	6	0.4	0.574	0.517	0.230	1
NOJC686M010#WJ	C	68	10	85	7	105	13.6	12	0.5	0.514	0.462	0.206	1
NOJD107M010#WJ	D	100	10	85	7	105	20.0	12	0.4	0.671	0.604	0.268	3
NOJD107M010#WB	D	100	10	85	7	105	20.0	12	0.15	1.095	0.986	0.438	3

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 274.

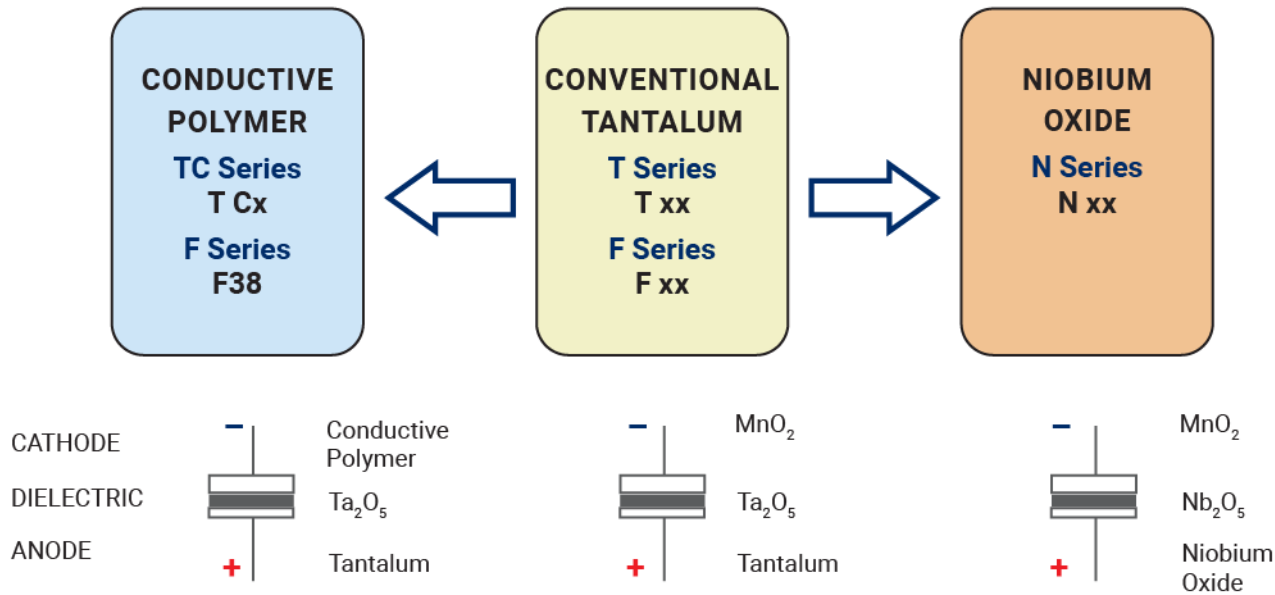
NOTE: AVX reserves the right to supply higher voltage ratings in the same case size, to the same reliability standards.

QUALIFICATION TABLE

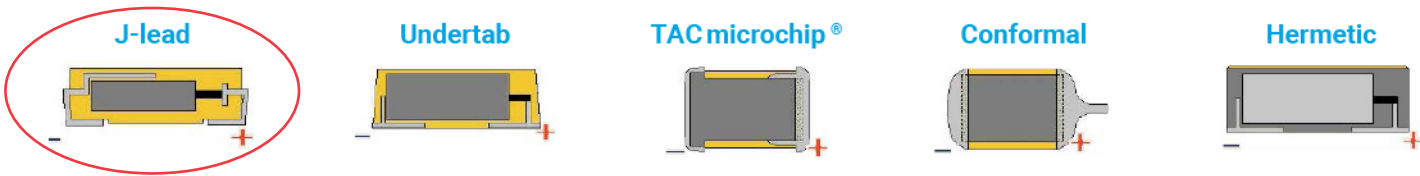
TEST	NOJ series (Temperature range -55°C to +105°C)									
	Condition			Characteristics						
Endurance	Apply rated voltage (Ur) at 85°C and / or category voltage (Uc) at 105°C for 2000 hours through a circuit impedance of $\leq 0.1\Omega/V$. Stabilize at room temperature for 1-2 hours before measuring.			Visual examination	no visible damage					
				DCL	initial limit					
				$\Delta C/C$	within $\pm 10\%$ of initial value					
				DF	initial limit					
				ESR	1.25 x initial limit					
Storage Life	Store at 105°C, no voltage applied, for 2000 hours. Stabilize at room temperature for 1-2 hours before measuring.			Visual examination	no visible damage					
				DCL	initial limit					
				$\Delta C/C$	within $\pm 10\%$ of initial value					
				DF	initial limit					
				ESR	1.25 x initial limit					
Humidity	Store at 65°C and 95% relative humidity for 500 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					
				$\Delta C/C$	within $\pm 10\%$ of initial value					
				DF	1.2 x initial limit					
				ESR	1.25 x initial limit					
Biased Humidity	Apply rated voltage (Ur) at 85°C, 85°C relative humidity for 1000 hours. Stabilize at room temperature and humidity for 1-2 hours before measuring.			Visual examination	no visible damage					
				DCL	2 x initial limit					
				$\Delta C/C$	within $\pm 10\%$ 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	15							
	2	-55	15	DCL	IL*	n/a	IL*	10 x IL*	12.5 x IL*	IL*
	3	+20	15	$\Delta C/C$	n/a	+0/-10%	$\pm 5\%$	+10/-0%	+12/-0%	$\pm 5\%$
	4	+85	15	DF	IL*	1.5 x IL*	IL*	1.5 x IL*	2 x IL*	IL*
	5	+105	15							
	6	+20	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*
Surge Voltage	Apply 1.3x category voltage (Uc) at 105°C for 1000 cycles of duration 6 min (30 sec charge, 5 min 30 sec discharge) through a charge / discharge resistance of 1000 Ω			Visual examination	no visible damage					
				DCL	initial limit					
				$\Delta C/C$	within $\pm 5\%$ 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					
				$\Delta C/C$	within $\pm 5\%$ 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					
				$\Delta C/C$	within $\pm 5\%$ of initial value					
				DF	initial limit					
				ESR	1.25 x initial limit					

*Initial Limit

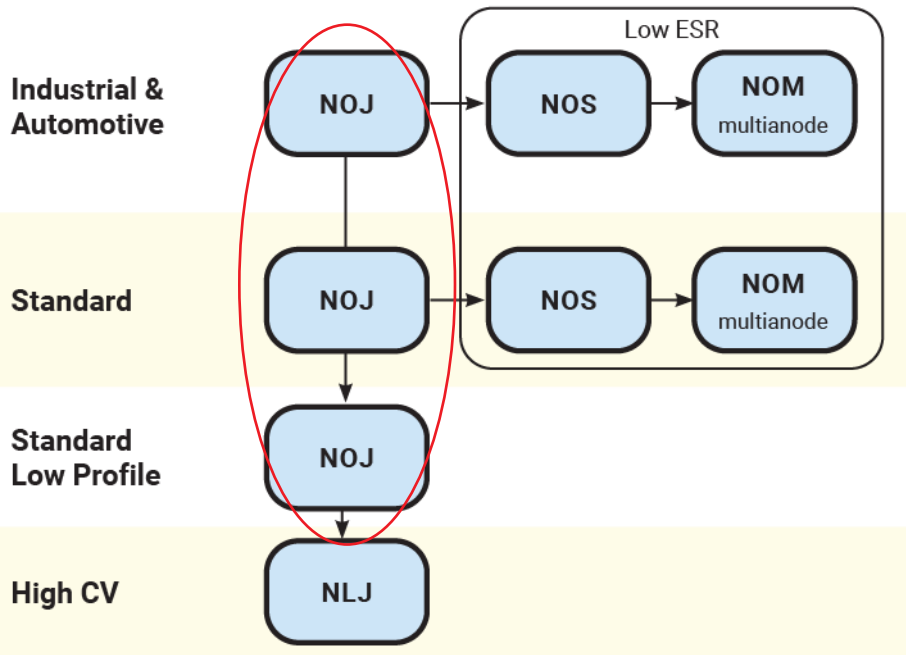
SOLID ELECTROLYTIC CAPACITOR ROADMAP



FIVE CAPACITOR CONSTRUCTION STYLES



SERIES LINE UP : NIOBIUM OXIDE OxiCap® CAPACITORS



Mouser Electronics

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Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Kyocera AVX:

NOJD227M004RWJ	NOJB476M004RWJ	NOJC476M006RWJ	NOJC476M004RWJ	NOJE227M006RWJ
NOJC686M006RWJ	NOJC686M004RWJ	NOJC107M006RWJ	NOJC476M010SWJ	NOJA226M004RWJ
NOJA336M002RWJ	NOJB106M010RWJ	NOJB156M010RWJ	NOJC476M006SWJ	NOJC476M010RWJ
NOJD477M002RWJ	NOJW107M001RWJ	NOJD107M006RWJ	NOJC107M004RWJ	NOJC157M004RWJ
NOJD157M006RWJ	NOJE477M004RWJ	NOJV477M006RWJ	NOJB336M006RWJ	NOJB336M004RWJ
NOJC336M006RWJ	NOJA106M006RWJ	NOJB226M006RWJ	NOJB226M004RWJ	NOJA226M002RWJ
NOJD337M004RWJ	NOJE337M006RWJ	NOJA156M004RWJ	NOJB156M006RWJ	NOJV687M004RWJ
NOJB107M004RWJ	NOJC107M006SWJ	NOJC227M004RWJ	NOJD107M010RWJ	NOJD337M006RWJ
NOJP106M006RWJ	NOJP156M001RWJ	NOJP156M002RWJ	NOJP156M004RWJ	NOJP225M010RWJ
NOJP226M001RWJ	NOJP226M002RWJ	NOJP335M010RWJ	NOJP685M006RWJ	NOJV108M004RWJ
NOJY337M004RWJ	NOJW476M006RWJ	NOJT106M006RWJ	NOJB476M006RWJ	NOJD157M004RWJ
NOJD477M004RWJ	NOJX107M004RWJ	NOJT226M006RWJ	NOJE687M004RWJ	NOJC157M006RWJ
NOJA156M006RWJ	NOJA336M004RWJ	NOJA476M001RWJ	NOJB107M001RWJ	NOJB226M006SWJ
NOJB336M006SWJ	NOJC337M001RWJ	NOJS106M002RWJ	NOJS156M001RWJ	NOJS226M001RWJ
NOJS475M006RWJ	NOJT156M002RWJ	NOJT226M002RWJ	NOJT336M001RWJ	NOJT336M002RWJ
NOJW686M004RWJ	NOJX686M006RWJ	NOJV108M002RWJ	NOJA475M006RWJ	NOJB226M010RWJ
NOJA106M010RWJ	NOJA475M010RWJ	NOJC336M006SWJ	NOJA336M004SWJ	NOJB107M006RWB
NOJC157M006SWJ	NOJC226M010SWJ	NOJC227M006RWJ	NOJC336M010SWJ	NOJC686M010RWJ
NOJW107M002RWJ	NOJY227M006RWJ	NOJB107M006RWJ	NOJF157M006RWJ	NOJA476M004RWJ
NOJA156M010RWJ	NOJB107M002RWJ	NOJB226M010RWB	NOJB336M006RWB	NOJB686M002RWJ