

OxiCap[®] NOS Low ESR Series



Niobium Oxide Capacitor



FEATURES

- Low ESR NbO capacitors
- Non-burn safe technology
- Reliability level: 0.2%/1000 hrs.
- CV range: 10-1000µF / 1.8-8V
- 9 case sizes available
- IBM global approval received in 2004
- Elektra Award received in 2005
- Meets requirements of AEC-Q200
- -55 to +125°C operation temperature

APPLICATIONS

- Medium power DC/DC for transportation and automotive industry



LEAD-FREE
LEAD-FREE COMPATIBLE COMPONENT



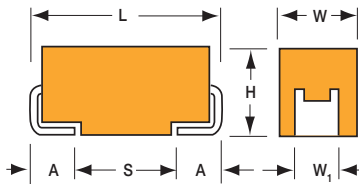
RoHS
COMPLIANT



NON-BURN
NON-SMOKE



Elektra Award
2005



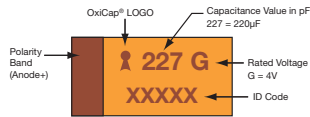
CASE DIMENSIONS: millimeters (inches)

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)
W	2312	6032-15	6.00 (0.236)	3.20 (0.126)	1.50 (0.059) max.	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) max.	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) max.	2.40 (0.094)	1.30 (0.051)	4.40 (0.173)

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

MARKING

A, B, C, D, E, V, W, X, Y CASE



HOW TO ORDER

NOS	D	107	M	006	R	0100	-
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 008 = 8Vdc	Packaging R = Pure Tin 7" Reel S = Pure Tin 13" Reel	ESR in mΩ	Additional characters may be added for special requirements V = Dry pack Option (selected codes only) with exception of D, E, X, Y, V cases

TECHNICAL SPECIFICATIONS

Technical Data:	All technical data relate to an ambient temperature of +25°C is not stated						
Capacitance Range:	10 µF to 1000 µF						
Capacitance Tolerance:	±20%						
Leakage Current DCL:	0.02CV						
Rated Voltage DC (V _R)	≤ +85°C:	1.8	2.5	4	6.3	8	
Category Voltage (V _C)	≤ +105°C:	1.2	1.7	2.7	4	7	
Category Voltage (V _C)	≤ +125°C:	0.9	1.3	2	3	4	
Surge Voltage (V _S)	≤ +85°C:	2.3	3.3	5.2	8	10	
Surge Voltage (V _S)	≤ +105°C:	1.6	2.2	3.4	5	8	
Surge Voltage (V _S)	≤ +125°C:	1.2	1.7	2.6	4	5.3	
Temperature Range:	-55°C to +125°C						
Reliability:	0.2% per 1000 hours at 85°C, V _R , 0.1Ω/V series impedance, 60% confidence level Meets requirements of AEC-Q200						

OxiCap® NOS Low ESR Series



Niobium Oxide Capacitor

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)	4.0V (G)	6.3V (J)	8V (P)
10	106				A(800,1000,2000,2200)	A(2200) B(1000)
15	156			A(1500,2000)	B(600,2000)	B(2000)
22	226		A(900,1900)	B(600,1900)	B(600,1900)	B(700,1800) C(500)
33	336		B(1700)	B(600,1700)	B(600,1700) C(500) W(250,500)	C(500)
47	476		B(500,1600)	B(500,1600) C(300,500) W(150,500)	B(500,800) C(300,500)	C(400)
68	686		C(200,500) W(150,400)	C(200,500)	C(75,200,500) X(100,500) Y(100,500)	C(500)
100	107	B(350,1400) W(150,400)	C(150,400)	C(70,150,400) X(100,400)	C(150,400) D(80,100,400) Y(100,400)	D(400)
150	157	C(400)	C(65,150,400) X(100,400)	C(90,150,400) Y(100,400)	D(50,70,100,400) Y(100,400)	
220	227	C(125,400) X(100,400)	C(80,125,400) Y(100,400)	D(40,60,100,400) Y(100,400)	D(45,60,100,400) E(80,100,400)	
330	337	Y(100,300)	D(35,50,100,300) Y(100,300)	D(35,55,100,300) E(100) Y(150,300)	E(80,100,300)	
470	477	Y(100,300)	D(35,55,100,300) E(100,300)	D(100,300) E(75,100,300)	V(75,300)	
680	687		E(60,300)	V(75,300)		
1000	108		V(50,300)			

Released ratings (ESR ratings in mOhms in parenthesis)

Engineering samples – please contact AVX

*Ratings under development – subject to change

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

OxiCap[®] NOS Low ESR Series



Niobium Oxide Capacitor

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 (mΩ)	MSL	100kHz RMS Current (A)		
											25°C	85°C	125°C
1.8 Volt @ 85°C													
NOSB107M001#0350	B	100	1.8	85	0.9	125	3.6	6	350	1	0.540	0.486	0.216
NOSB107M001#1400	B	100	1.8	85	0.9	125	3.6	6	1400	1	0.270	0.243	0.108
NOSW107M001#0150	W	100	1.8	85	0.9	125	3.6	6	150	1	0.849	0.764	0.339
NOSW107M001#0400	W	100	1.8	85	0.9	125	3.6	6	400	1	0.520	0.468	0.208
NOSC157M001#0400	C	150	1.8	85	0.9	125	5.4	8	400	1	0.574	0.517	0.230
NOSC227M001#0125	C	220	1.8	85	0.9	125	8.0	8	125	1	1.028	0.925	0.411
NOSC227M001#0400	C	220	1.8	85	0.9	125	8.0	8	400	1	0.574	0.517	0.230
NOSX227M001#0100	X	220	1.8	85	0.9	125	8.0	8	100	3	1.095	0.986	0.438
NOSX227M001#0400	X	220	1.8	85	0.9	125	8.0	8	400	3	0.548	0.493	0.219
NOSY337M001#0100	Y	330	1.8	85	0.9	125	11.9	8	100	3	1.225	1.102	0.490
NOSY337M001#0300	Y	330	1.8	85	0.9	125	11.9	8	300	3	0.707	0.636	0.283
NOSY477M001#0100	Y	470	1.8	85	0.9	125	17.0	8	100	3	1.225	1.102	0.490
NOSY477M001#0300	Y	470	1.8	85	0.9	125	17.0	8	300	3	0.707	0.636	0.283
2.5 Volt @ 85°C													
NOSA226M002#0900	A	22	2.5	85	1.3	125	1.1	6	900	1	0.316	0.285	0.126
NOSA226M002#1900	A	22	2.5	85	1.3	125	1.1	6	1900	1	0.218	0.196	0.087
NOSB336M002#1700	B	33	2.5	85	1.3	125	1.7	6	1700	1	0.245	0.220	0.098
NOSB476M002#0500	B	47	2.5	85	1.3	125	2.4	6	500	1	0.452	0.406	0.181
NOSB476M002#1600	B	47	2.5	85	1.3	125	2.4	6	1600	1	0.252	0.227	0.101
NOSC686M002#0200	C	68	2.5	85	1.3	125	3.4	6	200	1	0.812	0.731	0.325
NOSC686M002#0500	C	68	2.5	85	1.3	125	3.4	6	500	1	0.514	0.462	0.206
NOSW686M002#0150	W	68	2.5	85	1.3	125	3.4	6	150	1	0.849	0.764	0.339
NOSW686M002#0400	W	68	2.5	85	1.3	125	3.4	6	400	1	0.520	0.468	0.208
NOSC107M002#0150	C	100	2.5	85	1.3	125	5.0	6	150	1	0.938	0.844	0.375
NOSC107M002#0400	C	100	2.5	85	1.3	125	5.0	6	400	1	0.574	0.517	0.230
NOSC157M002#0065	C	150	2.5	85	1.3	125	7.5	6	65	1	1.425	1.283	0.570
NOSC157M002#0150	C	150	2.5	85	1.3	125	7.5	6	150	1	0.938	0.844	0.375
NOSC157M002#0400	C	150	2.5	85	1.3	125	7.5	6	400	1	0.574	0.517	0.230
NOSX157M002#0100	X	150	2.5	85	1.3	125	7.5	6	100	3	1.095	0.986	0.438
NOSX157M002#0400	X	150	2.5	85	1.3	125	7.5	6	400	3	0.548	0.493	0.219
NOSC227M002#0080	C	220	2.5	85	1.3	125	11.0	8	80	1	1.285	1.156	0.514
NOSC227M002#0125	C	220	2.5	85	1.3	125	11.0	8	125	1	1.028	0.925	0.411
NOSC227M002#0400	C	220	2.5	85	1.3	125	11.0	8	400	1	0.574	0.517	0.230
NOSY227M002#0100	Y	220	2.5	85	1.3	125	11.0	8	100	3	1.225	1.102	0.490
NOSY227M002#0400	Y	220	2.5	85	1.3	125	11.0	8	400	3	0.612	0.551	0.245
NOSD337M002#0035	D	330	2.5	85	1.3	125	16.5	10	35	3	2.268	2.041	0.907
NOSD337M002#0050	D	330	2.5	85	1.3	125	16.5	10	50	3	1.897	1.708	0.759
NOSD337M002#0100	D	330	2.5	85	1.3	125	16.5	10	100	3	1.342	1.207	0.537
NOSD337M002#0300	D	330	2.5	85	1.3	125	16.5	10	300	3	0.775	0.697	0.310
NOSY337M002#0100	Y	330	2.5	85	1.3	125	16.5	10	100	3	1.225	1.102	0.490
NOSY337M002#0300	Y	330	2.5	85	1.3	125	16.5	10	300	3	0.707	0.636	0.283
NOSD477M002#0035	D	470	2.5	85	1.3	125	23.5	12	35	3	2.268	2.041	0.907
NOSD477M002#0055	D	470	2.5	85	1.3	125	23.5	12	55	3	1.809	1.628	0.724
NOSD477M002#0100	D	470	2.5	85	1.3	125	23.5	12	100	3	1.342	1.207	0.537
NOSD477M002#0300	D	470	2.5	85	1.3	125	23.5	12	300	3	0.775	0.697	0.310
NOSE477M002#0100	E	470	2.5	85	1.3	125	23.5	10	100	3	1.407	1.266	0.563
NOSE477M002#0300	E	470	2.5	85	1.3	125	23.5	10	300	3	0.812	0.731	0.325
NOSE687M002#0060	E	680	2.5	85	1.3	125	34.0	14	60	3	1.817	1.635	0.727
NOSE687M002#0300	E	680	2.5	85	1.3	125	34.0	14	300	3	0.812	0.731	0.325
NOSV108M002#0050	V	1000	2.5	85	1.3	125	50.0	16	50	3	2.449	2.205	0.980
NOSV108M002#0300	V	1000	2.5	85	1.3	125	50.0	16	300	3	1.000	0.900	0.400
4 Volt @ 85°C													
NOSA156M004#1500	A	15	4	85	2	125	1.2	6	1500	1	0.245	0.220	0.098
NOSA156M004#2000	A	15	4	85	2	125	1.2	6	2000	1	0.212	0.191	0.085
NOSB226M004#0600	B	22	4	85	2	125	1.8	6	600	1	0.412	0.371	0.165
NOSB226M004#1900	B	22	4	85	2	125	1.8	6	1900	1	0.232	0.209	0.093
NOSB336M004#0600	B	33	4	85	2	125	2.6	6	600	1	0.412	0.371	0.165
NOSB336M004#1700	B	33	4	85	2	125	2.6	6	1700	1	0.245	0.220	0.098
NOSB476M004#0500	B	47	4	85	2	125	3.8	6	500	1	0.452	0.406	0.181
NOSB476M004#1600	B	47	4	85	2	125	3.8	6	1600	1	0.252	0.227	0.101
NOSC476M004#0300	C	47	4	85	2	125	3.8	6	300	1	0.663	0.597	0.265
NOSC476M004#0500	C	47	4	85	2	125	3.8	6	500	1	0.514	0.462	0.206
NOSW476M004#0150	W	47	4	85	2	125	3.8	6	150	1	0.849	0.764	0.339
NOSW476M004#0500	W	47	4	85	2	125	3.8	6	500	1	0.465	0.418	0.186
NOSC686M004#0200	C	68	4	85	2	125	5.4	6	200	1	0.812	0.731	0.325
NOSC686M004#0500	C	68	4	85	2	125	5.4	6	500	1	0.514	0.462	0.206
NOSC107M004#0070	C	100	4	85	2	125	8.0	6	70	1	1.373	1.236	0.549
NOSC107M004#0150	C	100	4	85	2	125	8.0	6	150	1	0.938	0.844	0.375
NOSC107M004#0400	C	100	4	85	2	125	8.0	6	400	1	0.574	0.517	0.230
NOSX107M004#0100	X	100	4	85	2	125	8.0	6	100	3	1.095	0.986	0.438

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Niobium Oxide Capacitor

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 (mΩ)	MSL	100kHz RMS Current (A)		
											25°C	85°C	125°C
NOSX107M004#0400	X	100	4	85	2	125	8.0	6	400	3	0.548	0.493	0.219
NOSC157M004#0090	C	150	4	85	2	125	12.0	6	90	1	1.211	1.090	0.484
NOSC157M004#0150	C	150	4	85	2	125	12.0	6	150	1	0.938	0.844	0.375
NOSC157M004#0400	C	150	4	85	2	125	12.0	6	400	1	0.574	0.517	0.230
NOSY157M004#0100	Y	150	4	85	2	125	12.0	6	100	3	1.225	1.102	0.490
NOSY157M004#0400	Y	150	4	85	2	125	12.0	6	400	3	0.612	0.551	0.245
NOSD227M004#0040	D	220	4	85	2	125	17.6	8	40	3	2.121	1.909	0.849
NOSD227M004#0060	D	220	4	85	2	125	17.6	8	60	3	1.732	1.559	0.693
NOSD227M004#0100	D	220	4	85	2	125	17.6	8	100	3	1.342	1.207	0.537
NOSD227M004#0400	D	220	4	85	2	125	17.6	8	400	3	0.671	0.604	0.268
NOSY227M004#0100	Y	220	4	85	2	125	17.6	10	100	3	1.225	1.102	0.490
NOSY227M004#0400	Y	220	4	85	2	125	17.6	10	400	3	0.612	0.551	0.245
NOSD337M004#0035	D	330	4	85	2	125	26.4	8	35	3	2.268	2.041	0.907
NOSD337M004#0055	D	330	4	85	2	125	26.4	8	55	3	1.809	1.628	0.724
NOSD337M004#0100	D	330	4	85	2	125	26.4	8	100	3	1.342	1.207	0.537
NOSD337M004#0300	D	330	4	85	2	125	26.4	8	300	3	0.775	0.697	0.310
NOSE337M004#0100	E	330	4	85	2	125	26.4	8	100	3	1.407	1.266	0.563
NOSY337M004#0150	Y	330	4	85	2	125	26.4	12	150	3	1.000	0.900	0.400
NOSY337M004#0300	Y	330	4	85	2	125	26.4	12	300	3	0.707	0.636	0.283
NOSD477M004#0100	D	470	4	85	2	125	37.6	12	100	3	1.342	1.207	0.537
NOSD477M004#0300	D	470	4	85	2	125	37.6	12	300	3	0.775	0.697	0.310
NOSE477M004#0075	E	470	4	85	2	125	37.6	12	75	3	1.625	1.462	0.650
NOSE477M004#0100	E	470	4	85	2	125	37.6	12	100	3	1.407	1.266	0.563
NOSE477M004#0300	E	470	4	85	2	125	37.6	12	300	3	0.812	0.731	0.325
NOSV687M004#0075	V	680	4	85	2	125	54.4	14	75	3	2.000	1.800	0.800
NOSV687M004#0300	V	680	4	85	2	125	54.4	14	300	3	1.000	0.900	0.400
6.3 Volt @ 85°C													
NOSA106M006#0800	A	10	6.3	85	3	125	1.2	6	800	1	0.335	0.302	0.134
NOSA106M006#1000	A	10	6.3	85	3	125	1.2	6	1000	1	0.300	0.270	0.120
NOSA106M006#2000	A	10	6.3	85	3	125	1.2	6	2000	1	0.212	0.191	0.085
NOSA106M006#2200	A	10	6.3	85	3	125	1.2	6	2200	1	0.202	0.182	0.081
NOSB156M006#0600	B	15	6.3	85	3	125	1.8	6	600	1	0.412	0.371	0.165
NOSB156M006#2000	B	15	6.3	85	3	125	1.8	6	2000	1	0.226	0.203	0.090
NOSB226M006#0600	B	22	6.3	85	3	125	2.6	6	600	1	0.412	0.371	0.165
NOSB226M006#1900	B	22	6.3	85	3	125	2.6	6	1900	1	0.232	0.209	0.093
NOSB336M006#0600	B	33	6.3	85	3	125	4.0	6	600	1	0.412	0.371	0.165
NOSB336M006#1700	B	33	6.3	85	3	125	4.0	6	1700	1	0.245	0.220	0.098
NOSC336M006#0500	C	33	6.3	85	3	125	4.0	6	500	1	0.514	0.462	0.206
NOSW336M006#0250	W	33	6.3	85	3	125	4.0	6	250	1	0.657	0.592	0.263
NOSW336M006#0500	W	33	6.3	85	3	125	4.0	6	500	1	0.465	0.418	0.186
NOSB476M006#0500	B	47	6.3	85	3	125	5.6	6	500	1	0.452	0.406	0.181
NOSB476M006#0800	B	47	6.3	85	3	125	5.6	6	800	1	0.357	0.321	0.143
NOSC476M006#0300	C	47	6.3	85	3	125	5.7	6	300	1	0.663	0.597	0.265
NOSC476M006#0500	C	47	6.3	85	3	125	5.7	6	500	1	0.514	0.462	0.206
NOSC686M006#0075	C	68	6.3	85	3	125	8.2	6	75	1	1.327	1.194	0.531
NOSC686M006#0200	C	68	6.3	85	3	125	8.2	6	200	1	0.812	0.731	0.325
NOSC686M006#0500	C	68	6.3	85	3	125	8.2	6	500	1	0.514	0.462	0.206
NOSX686M006#0100	X	68	6.3	85	3	125	8.2	6	100	3	1.095	0.986	0.438
NOSX686M006#0500	X	68	6.3	85	3	125	8.2	6	500	3	0.490	0.441	0.196
NOSY686M006#0100	Y	68	6.3	85	3	125	8.2	6	100	3	1.225	1.102	0.490
NOSY686M006#0500	Y	68	6.3	85	3	125	8.2	6	500	3	0.548	0.493	0.219
NOSC107M006#0150	C	100	6.3	85	3	125	12.0	8	150	1	0.938	0.844	0.375
NOSC107M006#0400	C	100	6.3	85	3	125	12.0	8	400	1	0.574	0.517	0.230
NOSD107M006#0080	D	100	6.3	85	3	125	12.0	6	80	3	1.500	1.350	0.600
NOSD107M006#0100	D	100	6.3	85	3	125	12.0	6	100	3	1.342	1.207	0.537
NOSD107M006#0400	D	100	6.3	85	3	125	12.0	6	400	3	0.671	0.604	0.268
NOSY107M006#0100	Y	100	6.3	85	3	125	12.0	6	100	3	1.225	1.102	0.490
NOSY107M006#0400	Y	100	6.3	85	3	125	12.0	6	400	3	0.612	0.551	0.245
NOSD157M006#0050	D	150	6.3	85	3	125	18.0	6	50	3	1.897	1.708	0.759
NOSD157M006#0070	D	150	6.3	85	3	125	18.0	6	70	3	1.604	1.443	0.641
NOSD157M006#0100	D	150	6.3	85	3	125	18.0	6	100	3	1.342	1.207	0.537
NOSD157M006#0400	D	150	6.3	85	3	125	18.0	6	400	3	0.671	0.604	0.268
NOSY157M006#0100	Y	150	6.3	85	3	125	18.0	6	100	3	1.225	1.102	0.490
NOSY157M006#0400	Y	150	6.3	85	3	125	18.0	6	400	3	0.612	0.551	0.245
NOSD227M006#0045	D	220	6.3	85	3	125	26.4	8	45	3	2.000	1.800	0.800
NOSD227M006#0060	D	220	6.3	85	3	125	26.4	8	60	3	1.732	1.559	0.693
NOSD227M006#0100	D	220	6.3	85	3	125	26.4	8	100	3	1.342	1.207	0.537
NOSD227M006#0400	D	220	6.3	85	3	125	26.4	8	400	3	0.671	0.604	0.268
NOSE227M006#0080	E	220	6.3	85	3	125	26.4	12	80	3	1.573	1.416	0.629
NOSE227M006#0100	E	220	6.3	85	3	125	26.4	12	100	3	1.407	1.266	0.563
NOSE227M006#0400	E	220	6.3	85	3	125	26.4	12	400	3	0.704	0.633	0.281

OxiCap[®] NOS Low ESR Series



Niobium Oxide Capacitor

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 (mΩ)	MSL	100kHz RMS Current (A)		
											25°C	85°C	125°C
NOSE337M006#0080	E	330	6.3	85	3	125	39.6	12	80	3	1.573	1.416	0.629
NOSE337M006#0100	E	330	6.3	85	3	125	39.6	12	100	3	1.407	1.266	0.563
NOSE337M006#0300	E	330	6.3	85	3	125	39.6	12	300	3	0.812	0.731	0.325
NOSV477M006#0075	V	470	6.3	85	3	125	56.4	14	75	3	2.000	1.800	0.800
NOSV477M006#0300	V	470	6.3	85	3	125	56.4	14	300	3	1.000	0.900	0.400
8 Volt @ 85°C													
NOSA106M008#2200	A	10	8	85	4	125	1.6	10	2200	1	0.202	0.182	0.081
NOSB106M008#1000	B	10	8	85	4	125	1.6	10	1000	1	0.319	0.287	0.128
NOSB156M008#2000	B	15	8	85	4	125	2.4	10	2000	1	0.226	0.203	0.090
NOSB226M008#0700	B	22	8	85	4	125	3.5	10	700	1	0.382	0.344	0.153
NOSB226M008#1800	B	22	8	85	4	125	3.5	10	1800	1	0.238	0.214	0.095
NOSC226M008#0500	C	22	8	85	4	125	3.5	10	500	1	0.514	0.462	0.206
NOSC336M008#0500	C	33	8	85	4	125	5.3	10	500	1	0.514	0.462	0.206
NOSC476M008#0400	C	47	8	85	4	125	7.5	10	400	1	0.574	0.517	0.230
NOSC686M008#0500	C	68	8	85	4	125	11.0	16	500	1	0.514	0.462	0.206
NOSD107M008#0400	D	100	8	85	4	125	16.0	16	400	3	0.671	0.604	0.268

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.

NOTE: AVX reserves the right to supply a higher voltage rating or tighter tolerance part in the same case size, to the same reliability standards.

OxiCap[®] NOS Low ESR Series



Niobium Oxide Capacitor

QUALIFICATION TABLE

TEST	NOS series (Temperature range -55°C to +125°C)									
	Condition			Characteristics						
Endurance	Determine after application of rated voltage for 2000 +48/-0 hours at 85±2°C and then leaving 1-2 hours at room temperature. Also determine of 125°C temperature, category voltage for 2000 +48/-0 hours and then leaving 1-2 hours at room temperature. Power supply impedance to be ≤0.1Ω/V.			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	125°C, 0V, 2000h			Visual examination	no visible damage					
				DCL	initial limit					
				ΔC/C	within ±10% of initial value					
				DF	initial limit					
				ESR	1.25 x initial limit					
Biased Humidity	Determine after leaving for 1000 hours at 85±2°C, 85% relative humidity and rated voltage and then recovery 1-2 hours at room temperature.			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	+125°C	+20°C
	1	+20±2	15	DCL	IL*	n/a	IL*	12 x IL*	15 x IL*	IL*
	2	-55+0/-3	15		ΔC/C	n/a	+0/-10%	±5%	+10/-0%	+12/-0%
	3	+20±2	15	DF		IL*	1.5 x IL*	IL*	1.5 x IL*	2 x IL*
	4	+85+3/-0	15	ESR	1.25 x IL*					
	5	+125+3/-0	15		2.5 x IL*					
	6	+20±2	15		1.25 x IL*					
Surge Voltage	Test temperature: 125°C+3/0°C Test voltage: Category voltage at 125°C Surge voltage: 1.3 x category voltage at 125°C Series protection resistance 1000±100Ω Discharge resistance: 1000Ω Number of cycles: 1000x Cycle duration: 6 min; 30 sec charge, 5 min 30 sec discharge			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 ±10% 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 ±10% of initial value					
				DF	initial limit					
				ESR	1.25 x initial limit					

*Initial Limit