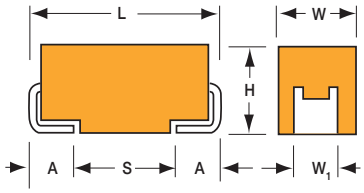
OxiCap® NOS Low ESR Series

Niobium Oxide Capacitor



FEATURES

- Low ESR Nb0 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

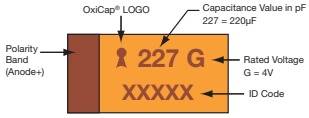
RoHS COMPLIANT

NON-BURN NON-SMOKE

Elektra Award 2005

MARKING

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



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)

W_1 dimension applies to the termination width for A dimensional area only.

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					

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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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.

QUALIFICATION TABLE

<table>
<tr><th>TEST</th><th colspan="3">NOS series (Temperature range -55ºC to +125ºC)
Condition</th><th colspan="7">Characteristics</th></tr>
<tr><td rowspan="5">Endurance</td><td colspan="3" rowspan="5">Determine after application of rated voltage for 2000 +48/-0 hours at 85±2ºC and then leaving 1-2 hours at room temperature. Also determine of 125ºC 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.</td><td>Visual examination</td><td colspan="6">no visible damage</td></tr>
<tr><td>DCL</td><td colspan="6">initial limit</td></tr>
<tr><td>ΔC/C</td><td colspan="6">within ±10% of initial value</td></tr>
<tr><td>DF</td><td colspan="6">initial limit</td></tr>
<tr><td>ESR</td><td colspan="6">1.25 x initial limit</td></tr>
<tr><td rowspan="5">Storage Life</td><td colspan="3" rowspan="5">125ºC, 0V, 2000h</td><td>Visual examination</td><td colspan="6">no visible damage</td></tr>
<tr><td>DCL</td><td colspan="6">initial limit</td></tr>
<tr><td>ΔC/C</td><td colspan="6">within ±10% of initial value</td></tr>
<tr><td>DF</td><td colspan="6">initial limit</td></tr>
<tr><td>ESR</td><td colspan="6">1.25 x initial limit</td></tr>
<tr><td rowspan="5">Biased Humidity</td><td colspan="3" rowspan="5">Determine after leaving for 1000 hours at 85±2ºC, 85% relative humidity and rated voltage and then recovery 1-2 hours at room temperature.</td><td>Visual examination</td><td colspan="6">no visible damage</td></tr>
<tr><td>DCL</td><td colspan="6">2 x initial limit</td></tr>
<tr><td>ΔC/C</td><td colspan="6">within ±10% of initial value</td></tr>
<tr><td>DF</td><td colspan="6">1.2 x initial limit</td></tr>
<tr><td>ESR</td><td colspan="6">1.25 x initial limit</td></tr>
<tr><td rowspan="7">Temperature Stability</td><td>Step</td><td>Temperature°C</td><td>Duration(min)</td><td></td><td>+20ºC</td><td>-55ºC</td><td>+20ºC</td><td>+85ºC</td><td>+125ºC</td><td>+20ºC</td></tr>
<tr><td>1</td><td>+20±2</td><td>15</td><td>DCL</td><td>IL*</td><td>n/a</td><td>IL*</td><td>12 x IL*</td><td>15 x IL*</td><td>IL*</td></tr>
<tr><td>2</td><td>-55+0/-3</td><td>15</td><td>ΔC/C</td><td>n/a</td><td>+0/-10%</td><td>±5%</td><td>+10/-0%</td><td>+12/-0%</td><td>±5%</td></tr>
<tr><td>3</td><td>+20±2</td><td>15</td><td>DF</td><td>IL*</td><td>1.5 x IL*</td><td>IL*</td><td>1.5 x IL*</td><td>2 x IL*</td><td>IL*</td></tr>
<tr><td>4</td><td>+85+3/-0</td><td>15</td><td rowspan="3">ESR</td><td rowspan="3">1.25 x IL*</td><td rowspan="3">2.5 x IL*</td><td rowspan="3">1.25 x IL*</td><td rowspan="3">1.25 x IL*</td><td rowspan="3">1.25 x IL*</td><td rowspan="3">1.25 x IL*</td></tr>
<tr><td>5</td><td>+125+3/-0</td><td>15</td></tr>
<tr><td>6</td><td>+20±2</td><td>15</td></tr>
<tr><td rowspan="5">Surge Voltage</td><td colspan="3" rowspan="5">Test temperature: 125ºC+3/0ºC
Test voltage: Category voltage at 125ºC
Surge voltage:1.3 x category voltage at 125ºC
Series protection resistance 1000±100Ω
Discharge resistance: 1000Ω
Number of cycles: 1000x
Cycle duration: 6 min; 30 sec charge,
5 min 30 sec discharge</td><td>Visual examination</td><td colspan="6">no visible damage</td></tr>
<tr><td>DCL</td><td colspan="6">initial limit</td></tr>
<tr><td>ΔC/C</td><td colspan="6">within ±5% of initial value</td></tr>
<tr><td>DF</td><td colspan="6">initial limit</td></tr>
<tr><td>ESR</td><td colspan="6">1.25 x initial limit</td></tr>
<tr><td rowspan="5">Mechanical Shock</td><td colspan="3" rowspan="5">MIL-STD-202, Method 213, Condition F</td><td>Visual examination</td><td colspan="6">no visible damage</td></tr>
<tr><td>DCL</td><td colspan="6">initial limit</td></tr>
<tr><td>ΔC/C</td><td colspan="6">within ±5% of initial value</td></tr>
<tr><td>DF</td><td colspan="6">initial limit</td></tr>
<tr><td>ESR</td><td colspan="6">1.25 x initial limit</td></tr>
<tr><td rowspan="5">Vibration</td><td colspan="3" rowspan="5">MIL-STD-202, Method 204, Condition D</td><td>Visual examination</td><td colspan="6">no visible damage</td></tr>
<tr><td>DCL</td><td colspan="6">initial limit</td></tr>
<tr><td>ΔC/C</td><td colspan="6">within ±5% of initial value</td></tr>
<tr><td>DF</td><td colspan="6">initial limit</td></tr>
<tr><td>ESR</td><td colspan="6">1.25 x initial limit</td></tr>
</table>

*Initial Limit