

# OxiCap<sup>®</sup> NOS Low ESR Series



## Niobium Oxide Capacitor



- Low ESR NbO capacitors
- Non-burn safe technology
- Reliability level: 0.2%/1000 hrs.
- CV range: 10-1000 $\mu$ F / 1.8-6.3V
- 9 case sizes available
- IBM global approval received in 2004
- Electra Award received in 2005



Electra Award  
2005

### CASE DIMENSIONS: millimeters (inches)



For part marking see page 132

Code	EIA Code	EIA Metric	L $\pm$ 0.20 (0.008)	W+0.20 (0.008) -0.10 (0.004)	H+0.20 (0.008) -0.10 (0.004)	W <sub>1</sub> $\pm$ 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)	3.45 $\pm$ 0.30 (0.136 $\pm$ 0.012)	3.10 (0.120)	1.40 (0.055)	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)	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<sub>1</sub> dimension applies to the termination width for A dimensional area only.

### HOW TO ORDER

**NOS**

Type

**D**

Case Size  
See table above

**107**

Capacitance Code  
1st two digits represent significant figures, 3rd digit represents multiplier in pF

**M**

Tolerance  
M= $\pm$ 20%

**006**

Rated DC Voltage  
001 = 1.8Vdc  
002 = 2.5Vdc  
004 = 4Vdc  
006 = 6.3Vdc

**R**

Packaging  
R = Lead Free  
7" Reel  
S = Lead Free  
13" Reel

**0100**

ESR in m $\Omega$

**-**

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 $\mu$ F to 1000 $\mu$ F				
Capacitance Tolerance:	$\pm$ 20%				
Leakage Current DCL:	0.02CV				
Rated Voltage DC (V <sub>R</sub> )	$\leq$ +85°C:	1.8	2.5	4	6.3
Category Voltage (V <sub>C</sub> )	$\leq$ +125°C:	0.9	1.3	2	3
Surge Voltage (V <sub>S</sub> )	$\leq$ +85°C:	2.3	3.3	5.2	8
Surge Voltage (V <sub>S</sub> )	$\leq$ +125°C:	1.2	1.7	2.6	4
Temperature Range:	-55°C to +125°C				
Reliability:	0.2% per 1000 hours at 85°C, V <sub>R</sub> , 0.1 $\Omega$ /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 <sub>R</sub> ) to 85°C / 0.66 DC to 105°C / 0.5 DC to 125°C			
µF	Code	1.8V (x)	2.5V (e)	4.0V (G)	6.3V (J)
4.7	475				
6.8	685				
10	106				A(800, 1000, 2000)
15	156			A(1500)	B(600)
22	226		A(900)	B(600)	B(600)
33	336			B(600)	B(600) C(500) W(250)
47	476		B(500)	B(500) C(300) W(150)	B(500) C(300)
68	686		C(200) W(150)	C(200)	C(75,200) X(100) Y(100)
100	107	B(350) W(150)	C(150)	C(70,150) X(100)	C(150) D(80,100) Y(100)
150	157		C(65,150) X(100)	C(90,150) Y(100)	D(50,70,100) Y(100)
220	227	C(125) X(100)	C(80,125) Y(100)	D(40,60,100) Y(100)	D(45,60,100) E(80,100)
330	337	Y(100)	D(35,50,100) Y(100)	D(35,55,100) E(100)/Y(150)	E(80,100)
470	477	Y(100)	D(35,55,100) E(100)	D(100) E(75,100)	V(75)
680	687		E(60)	V(75)	
1000	108		V(50)		



LEAD-FREE

LEAD-FREE COMPATIBLE  
COMPONENT



RoHS  
COMPLIANT



NON-BURN  
NON-SMOKE

Available Ratings, (ESR ratings in mOhms in brackets)

Engineering samples - please contact manufacturer

\*Codes 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.



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### RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage(V)	DCL (µA)	DF %	ESR Max. (mΩ) @100kHz	100kHz Ripple Current Ratings (A)			100kHz Ripple Voltage Ratings (V)		
							25°C	85°C	125°C	25°C	85°C	125°C
<b>6.3 Volt @ 85°C (4 Volt @ 105°C, 3 Volt @ 125°C)</b>												
NOSA106M006#0800	A	10	6.3	1.2	6	800	0.335	0.302	0.134	0.268	0.241	0.107
NOSA106M006#1000	A	10	6.3	1.2	6	1000	0.300	0.270	0.120	0.300	0.270	0.120
NOSA106M006#2000	A	10	6.3	1.2	6	2000	0.212	0.191	0.085	0.424	0.382	0.170
NOSB156M006#0600	B	15	6.3	1.8	6	600	0.412	0.371	0.165	0.247	0.223	0.099
NOSB226M006#0600	B	22	6.3	2.6	6	600	0.412	0.371	0.165	0.247	0.223	0.099
NOSB336M006#0600	B	33	6.3	4.0	6	600	0.412	0.371	0.165	0.247	0.223	0.099
NOSC336M006#0500	C	33	6.3	4.0	6	500	0.514	0.462	0.206	0.257	0.231	0.103
NOSW336M006#0250	W	33	6.3	4.0	6	250	0.657	0.592	0.263	0.164	0.148	0.066
NOSB476M006#0500	B	47	6.3	5.6	6	500	0.452	0.406	0.181	0.226	0.203	0.090
NOSC476M006#0300	C	47	6.3	5.7	6	300	0.663	0.597	0.265	0.199	0.179	0.080
NOSC686M006#0075	C	68	6.3	8.2	6	75	1.327	1.194	0.531	0.099	0.090	0.040
NOSC686M006#0200	C	68	6.3	8.2	6	200	0.812	0.731	0.325	0.162	0.146	0.065
NOSX686M006#0100	X	68	6.3	8.2	6	100	1.095	0.986	0.438	0.110	0.099	0.044
NOSY686M006#0100	Y	68	6.3	8.2	6	100	1.225	1.102	0.490	0.122	0.110	0.049
NOSC107M006#0150	C	100	6.3	12.0	8	150	0.938	0.844	0.375	0.141	0.127	0.056
NOSD107M006#0080	D	100	6.3	12.0	6	80	1.500	1.350	0.600	0.120	0.108	0.048
NOSD107M006#0100	D	100	6.3	12.0	6	100	1.342	1.207	0.537	0.134	0.121	0.054
NOSY107M006#0100	Y	100	6.3	12.0	6	100	1.225	1.102	0.490	0.122	0.110	0.049
NOSD157M006#0050	D	150	6.3	18.0	6	50	1.897	1.708	0.759	0.095	0.085	0.038
NOSD157M006#0070	D	150	6.3	18.0	6	70	1.604	1.443	0.641	0.112	0.101	0.045
NOSD157M006#0100	D	150	6.3	18.0	6	100	1.342	1.207	0.537	0.134	0.121	0.054
NOSY157M006#0100	Y	150	6.3	18.0	6	100	1.225	1.102	0.490	0.122	0.110	0.049
NOSD227M006#0045	D	220	6.3	26.4	6	45	2.000	1.800	0.800	0.090	0.081	0.036
NOSD227M006#0060	D	220	6.3	26.4	8	60	1.732	1.559	0.693	0.104	0.094	0.042
NOSD227M006#0100	D	220	6.3	26.4	8	100	1.342	1.207	0.537	0.134	0.121	0.054
NOSE227M006#0080	E	220	6.3	26.4	12	80	1.573	1.416	0.629	0.126	0.113	0.050
NOSE227M006#0100	E	220	6.3	26.4	12	100	1.407	1.266	0.563	0.141	0.127	0.056
NOSE337M006#0080	E	330	6.3	39.6	12	80	1.573	1.416	0.629	0.126	0.113	0.050
NOSE337M006#0100	E	330	6.3	39.6	12	100	1.407	1.266	0.563	0.141	0.127	0.056
NOSV477M006#0075	V	470	6.3	56.4	12	75	2.000	1.800	0.800	0.150	0.135	0.060

# - Insert R for 7" reel or S for 13" reel

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

MSL level: See page 123 (6. Moisture Sensitivity Level) or packaging and reel label.

ESR allowed to move up to 1.25 times catalog limit post mounting.

**Note: AVX reserves the rights to supply higher voltage rating in the same case size to the same reliability standards.**

## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

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Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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