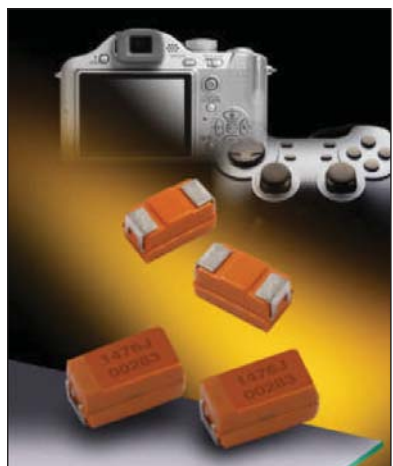




# OxiCap<sup>®</sup> NLJ Series

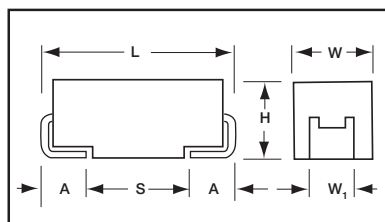
## Niobium Oxide Capacitors High CV Consumer Series



- High Volumetric efficiency
- Environmentally friendly
- 3xreflow 260°C compatible
- Consumer applications
- OxiCap<sup>®</sup> non-burn technology
- RoHS compliance
- Lead-free solution
- 10 case sizes available
- CV range: 22-1000µF / 4-10V



Electra Award  
2005



For part marking see page 132

### 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 <sub>1</sub> ±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)
G	1206	3216-15	3.20 (0.126)	1.60 (0.063)	1.50 (0.059) max	1.20 (0.047)	0.80 (0.031)	1.10 (0.043)
P	0805	2012-15	2.05 (0.081)	1.35 (0.053)	1.50 (0.059) max	1.0±0.1 (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) max	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) max	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) max	2.20 (0.087)	1.30 (0.051)	2.90 (0.114)
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

**NLJ**      **A**      **476**      **M**      **006**      **R**      **1600**

**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**  
004 = 4Vdc  
006 = 6.3Vdc  
010 = 10Vdc

**Packaging**  
R = 7" T/R  
S = 13" T/R

**ESR in mΩ**

### TECHNICAL SPECIFICATIONS

Technical Data: All technical data relate to an ambient temperature of +25°C

Capacitance Range:	6.8 µF to 1000 µF				
Capacitance Tolerance:	±20%				
Leakage Current DCL:	0.1CV				
Rated Voltage DC (V <sub>R</sub> )	-55°C ≤ +40°C:	4	6.3	10	
Category Voltage (V <sub>C</sub> )	at 85°C:	2	3.15	5	
Category Voltage (V <sub>C</sub> )	at 105°C:	1.32	2	3.3	
Temperature Range:	-55°C to +105°C with category voltage				
Reliability:	0.2% per 1000 hours at 85°C, 0.5xV <sub>R</sub> , 0.1Ω/V series impedance with 60% confidence level				



**Niobium Oxide Capacitors High CV Consumer Series**

**CAPACITANCE AND RATED VOLTAGE RANGE  
 (LETTER DENOTES CASE SIZE)**

Capacitance		Rated Voltage DC to 40°C / 0.5DC to 85°C / 0.33DC to 105°C		
µF	Code	4V (G)	6.3V (J)	10V (A)
6.8	685			K(4000)*/P(5000)*
10	106		K(4000)*	K(2200)*/P(6000)*
15	156	K(4000)*/P(4000)*	P(3500)*	L(2800)*/S(2000)*
22	226	P(4000)	L(2500)*/S(1800)	A(3000)*/G(3000)* L(2200)*
33	336	A(3000)*/S(1700)*	G(2200)/L(2500)*	A(1700)/T(1800)*
47	476	A(2600)*/G(2600)* L(1600)*	A(1600)/T(1600)	B(1000)/H(1000)* W(400)
68	686	A(1500)*/T(1500)*	H(900)*	B(1400)*
100	107	H(900)*	B(1700)/W(600)	C(1200)/Y(1200)
150	157	B(1500)/W(400)		
220	227			D(1000)
330	337		C(500)/Y(500)	
470	477	C(500)/Y(500)		
680	687		D(500)	
1000	108	D(500)		



**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.

**RATINGS & PART NUMBER REFERENCE**

AVX Part No.	Case Size	Cap (µF)	Rated Voltage (V)	Maximum Surge Current (A)	DCL (µA) Max.	ESR Max. (mOhm) @100kHz	100kHz Ripple Current Ratings (mA)			100kHz Ripple Voltage Ratings (mV)		
							25°C	85°C	105°C	25°C	85°C	105°C
<b>4 Volt @ 85°C (1.32 Volt @ 105°C)</b>												
NLJP226M004#4000	P	22	4	0.4	8.8	4000	134	121	54	537	483	215
NLJB157M004#1500	B	150	4	1.0	60.0	1500	261	235	104	391	352	156
NLJW157M004#0400	W	150	4	2.4	60.0	400	520	468	208	208	187	83
NLJC477M004#0500	C	470	4	2.1	188.0	500	514	462	206	257	231	103
NLJY477M004#0500	Y	470	4	2.1	188.0	500	548	493	219	274	246	110
NLJD108M004#0500	D	1000	4	2.1	400.0	500	600	540	240	300	270	120
<b>6.3 Volt @ 85°C (2 Volt @ 105°C)</b>												
NLJS226M006#1800	S	22	6.3	1.4	13.2	1800	208	187	83	375	337	150
NLJG336M006#2200	G	33	6.3	1.2	19.8	2200	195	176	78	430	387	172
NLJA476M006#1600	A	47	6.3	1.5	28.2	1600	237	213	98	379	342	152
NLJT476M006#1600	T	47	6.3	1.5	28.2	1600	245	220	98	392	353	157
NLJB107M006#1700	B	100	6.3	1.5	60.0	1700	245	220	98	416	375	167
NLJW107M006#0600	W	100	6.3	3.0	60.0	600	424	382	170	255	229	102
NLJC337M006#0500	C	330	6.3	3.3	198.0	500	514	462	206	257	231	103
NLJY337M006#0500	Y	330	6.3	3.3	198.0	500	548	493	219	274	246	110
NLJD687M006#0500	D	680	6.3	3.3	408.0	500	600	540	240	300	270	120
<b>10 Volt @ 85°C (3.3 Volt @ 105°C)</b>												
NLJA336M010#1700	A	33	10	2.3	33.0	1700	230	207	92	391	352	156
NLJB476M010#1000	B	47	10	3.4	47.0	1000	319	287	128	319	287	128
NLJW476M010#0400	W	47	10	5.9	47.0	400	520	468	208	208	187	83
NLJC107M010#1200	C	100	10	3.0	100.0	1200	332	298	133	398	358	159
NLJY107M010#1200	Y	100	10	3.0	100.0	1200	354	318	141	424	382	170
NLJD227M010#1000	D	220	10	3.4	220.0	1000	424	382	170	424	382	170

# 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, 0.5 RMS with DC bias of 2.2 volts. DCL is measured at rated voltage after 5 minutes. NLJ series is MSL level 3 according to J-STD-020C.

ESR allowed to move up to 1.25 times catalog limit post mounting.  
 DCL allowed to move up to 2.00 times catalog limit post mounting.L

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

