

OxiCap® NOJ Series



Niobium Oxide Capacitor



- Non-burn safe technology
- Reliability level: 0.5%/1000 hrs.
- 6 case sizes available
- Environmentally friendly
- IBM global approval received in 2004
- Electra Award received in 2005
- CV range: 4.7-1000 μ F / 1.8-10V



Electra Award
2005



For part marking see page 130

CASE DIMENSIONS: millimeters (inches)

| 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 \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) | 3.55 (0.140) | 3.10 (0.120) | 1.30 (0.051) | 4.40 (0.173) |

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

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 Suffix | Additional characters may be added for special requirements V = Dry pack Option (selected codes only) with exception of D, E, V cases |

TECHNICAL SPECIFICATIONS

| | | | | | | | |
|------------------------------------|--|-----|-----|-----|-----|----|--|
| Technical Data: | All technical data relate to an ambient temperature of +25°C is not stated | | | | | | |
| Capacitance Range: | 4.7 μ F to 1000 μ F | | | | | | |
| Capacitance Tolerance: | ±20% | | | | | | |
| Leakage Current DCL: | 0.02CV | | | | | | |
| Rated Voltage DC (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 , 0.1 Ω /V series impedance, 60% confidence level Meets requirements of AEC-Q200 | | | | | | |

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Niobium Oxide Capacitor

CAPACITANCE AND RATED VOLTAGE RANGE (LETTER DENOTES CASE SIZE)

| Capacitance | | Rated Voltage DC (V _R) to 85°C / 0.66 DC to 105°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 | V |
| 330 | 337 | C | C/D | D | D/E | |
| 470 | 477 | | D/E | D/E | E/V | |
| 680 | 687 | | E | E/V | | |
| 1000 | 108 | | V | V | | |

Released codes

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.



LEAD-FREE

LEAD-FREE COMPATIBLE
COMPONENT



RoHS
COMPLIANT



NON-BURN
NON-SMOKE

OxiCap® NOJ Series



Niobium Oxide Capacitor

RATINGS & PART NUMBER REFERENCE

| AVX Part No. | Case Size | Capacitance (µF) | Rated Voltage (V) | DCL (µA) Max. | DF % Max. | ESR Max. (Ω) @100kHz | MSL | 100kHz RMS Current (A) | | | 100kHz RMS Voltage (V) | | |
|---|-----------|------------------|-------------------|---------------|-----------|----------------------|-----|------------------------|-------|-------|------------------------|-------|-------|
| | | | | | | | | 25°C | 85°C | 105°C | 25°C | 85°C | 105°C |
| 6.3 Volt @ 85°C (4 Volt @ 105°C) | | | | | | | | | | | | | |
| NOJB336M006#WB | B | 33 | 6.3 | 4.0 | 6 | 0.7 | 1 | 0.382 | 0.344 | 0.153 | 0.267 | 0.240 | 0.170 |
| NOJC336M006#WJ | C | 33 | 6.3 | 4.0 | 6 | 0.5 | 1 | 0.514 | 0.462 | 0.206 | 0.257 | 0.231 | 0.103 |
| NOJB476M006#WJ | B | 47 | 6.3 | 5.6 | 6 | 1.6 | 1 | 0.252 | 0.227 | 0.101 | 0.404 | 0.364 | 0.162 |
| NOJC476M006#WJ | C | 47 | 6.3 | 5.7 | 6 | 0.5 | 1 | 0.514 | 0.462 | 0.206 | 0.257 | 0.231 | 0.103 |
| NOJB686M006#WJ | B | 68 | 6.3 | 8.2 | 20 | 1.5 | 1 | 0.261 | 0.235 | 0.104 | 0.391 | 0.352 | 0.156 |
| NOJC686M006#WJ | C | 68 | 6.3 | 8.2 | 6 | 0.5 | 1 | 0.514 | 0.462 | 0.206 | 0.257 | 0.231 | 0.103 |
| NOJB107M006#WJ | B | 100 | 6.3 | 60.0 | 20 | 1.7 | 1 | 0.245 | 0.220 | 0.098 | 0.416 | 0.375 | 0.167 |
| NOJB107M006#WB | B | 100 | 6.3 | 60.0 | 20 | 0.4 | 1 | 0.505 | 0.454 | 0.202 | 0.202 | 0.182 | 0.081 |
| NOJC107M006#WJ | C | 100 | 6.3 | 12.0 | 8 | 0.4 | 1 | 0.574 | 0.517 | 0.230 | 0.230 | 0.207 | 0.092 |
| NOJD107M006#WJ | D | 100 | 6.3 | 12.0 | 6 | 0.4 | 3 | 0.671 | 0.604 | 0.268 | 0.268 | 0.241 | 0.107 |
| NOJC157M006#WJ | C | 150 | 6.3 | 18.0 | 6 | 0.4 | 1 | 0.574 | 0.517 | 0.230 | 0.230 | 0.207 | 0.092 |
| NOJD157M006#WJ | D | 150 | 6.3 | 18.0 | 6 | 0.4 | 3 | 0.671 | 0.604 | 0.268 | 0.268 | 0.241 | 0.107 |
| NOJC227M006#WJ | C | 220 | 6.3 | 26.4 | 14 | 0.4 | 1 | 0.574 | 0.517 | 0.230 | 0.230 | 0.207 | 0.092 |
| NOJD227M006#WJ | D | 220 | 6.3 | 26.4 | 8 | 0.4 | 3 | 0.671 | 0.604 | 0.268 | 0.268 | 0.241 | 0.107 |
| NOJE227M006#WJ | E | 220 | 6.3 | 26.4 | 12 | 0.4 | 3 | 0.704 | 0.633 | 0.281 | 0.281 | 0.253 | 0.113 |
| NOJD337M006#WJ | D | 330 | 6.3 | 39.6 | 10 | 0.3 | 3 | 0.775 | 0.697 | 0.310 | 0.232 | 0.209 | 0.093 |
| NOJE337M006#WJ | E | 330 | 6.3 | 39.6 | 12 | 0.3 | 3 | 0.812 | 0.731 | 0.325 | 0.244 | 0.219 | 0.097 |
| NOJE477M006#WJ | E | 470 | 6.3 | 56.4 | 16 | 0.3 | 3 | 0.812 | 0.731 | 0.325 | 0.244 | 0.219 | 0.097 |
| NOJV477M006#WJ | V | 470 | 6.3 | 56.4 | 12 | 0.3 | 3 | 1.000 | 0.900 | 0.400 | 0.300 | 0.270 | 0.120 |
| 10 Volt @ 85°C (7 Volt @ 105°C) | | | | | | | | | | | | | |
| NOJA475M010#WJ | A | 4.7 | 10 | 1.0 | 6 | 3.1 | 1 | 0.170 | 0.153 | 0.068 | 0.528 | 0.475 | 0.211 |
| NOJA685M010#WJ | A | 6.8 | 10 | 1.4 | 6 | 2.6 | 1 | 0.186 | 0.167 | 0.074 | 0.484 | 0.435 | 0.193 |
| NOJA106M010#WJ | A | 10 | 10 | 2.0 | 6 | 2.2 | 1 | 0.202 | 0.182 | 0.081 | 0.445 | 0.400 | 0.178 |
| NOJB106M010#WJ | B | 10 | 10 | 2.0 | 6 | 2.2 | 1 | 0.215 | 0.194 | 0.086 | 0.474 | 0.426 | 0.189 |
| NOJA156M010#WJ | A | 15 | 10 | 3.0 | 6 | 2 | 1 | 0.212 | 0.191 | 0.085 | 0.424 | 0.382 | 0.170 |
| NOJB156M010#WJ | B | 15 | 10 | 3.0 | 6 | 2 | 1 | 0.226 | 0.203 | 0.090 | 0.452 | 0.406 | 0.181 |
| NOJB226M010#WJ | B | 22 | 10 | 4.4 | 6 | 1.8 | 1 | 0.238 | 0.214 | 0.095 | 0.428 | 0.386 | 0.171 |
| NOJB226M010#WB | B | 22 | 10 | 4.4 | 6 | 0.7 | 1 | 0.382 | 0.344 | 0.153 | 0.267 | 0.240 | 0.107 |
| NOJC226M010#WJ | C | 22 | 10 | 4.4 | 6 | 0.5 | 1 | 0.514 | 0.462 | 0.206 | 0.257 | 0.231 | 0.103 |
| NOJC336M010#WJ | C | 33 | 10 | 6.6 | 6 | 0.5 | 1 | 0.514 | 0.462 | 0.206 | 0.257 | 0.231 | 0.103 |
| NOJC476M010#WJ | C | 47 | 10 | 9.4 | 6 | 0.4 | 1 | 0.574 | 0.517 | 0.230 | 0.230 | 0.207 | 0.092 |
| NOJC686M010#WJ | C | 68 | 10 | 13.6 | 12 | 0.5 | 1 | 0.514 | 0.462 | 0.206 | 0.257 | 0.231 | 0.103 |
| NOJD107M010#WJ | D | 100 | 10 | 20.0 | 12 | 0.4 | 3 | 0.671 | 0.604 | 0.268 | 0.268 | 0.241 | 0.107 |
| NOJD107M010#WB | D | 100 | 10 | 20.0 | 12 | 0.15 | 3 | 1.095 | 0.986 | 0.438 | 0.164 | 0.148 | 0.066 |
| NOJV227M010#WJ | V | 220 | 10 | 44.0 | 12 | 0.4 | 3 | 0.866 | 0.779 | 0.346 | 0.364 | 0.312 | 0.139 |

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 low ESR Solid Tantalum Capacitors allow an ESR movement to 1.25 times catalogue limit post mounting.

For typical weight and composition see page 123.

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.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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