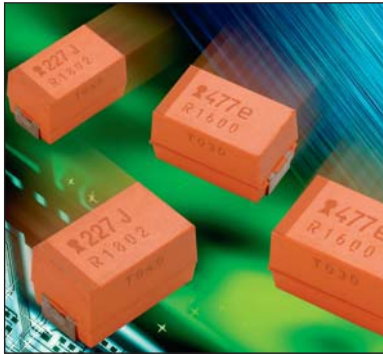


# OxiCap® NOM Low ESR Multianodes



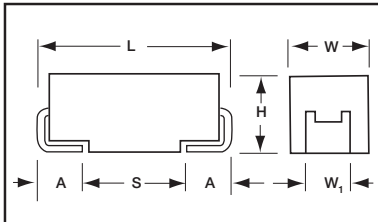
## Niobium Oxide Capacitor



- Multi-anode construction
- Super low ESR
- Non-burn safe technology
- CV range: 220-680μF / 1.8-6.3V
- IBM global approval received in 2004
- Elektra award received in 2005



Elektra Award  
2005



For part marking see page 157

### CASE DIMENSIONS: millimeters (inches)

| Code | EIA Code | EIA Metric | L±0.20 (0.008) | W±0.20 (0.008)<br>-0.10 (0.004) | H±0.20 (0.008)<br>-0.10 (0.004) | W <sub>1</sub> ±0.20 (0.008) | A±0.30 (0.012)<br>-0.20 (0.008) | S Min.       |
|------|----------|------------|----------------|---------------------------------|---------------------------------|------------------------------|---------------------------------|--------------|
| 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) |

W<sub>1</sub> dimension applies to the termination width for A dimensional area only.

### HOW TO ORDER

**NOM**

Type

**E**

Case Size  
See table above

**227**

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

**M**

Tolerance  
M=±20%

**006**

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

**R**

Packaging  
R = Pure Tin 7" Reel  
S = Pure Tin 13" Reel

**0040**

ESR in mΩ

### TECHNICAL SPECIFICATIONS

Technical Data:

All technical data relate to an ambient temperature of +25°C is not stated

Capacitance Range: 220 μF to 680 μF

Capacitance Tolerance: ±20%

Leakage Current DCL: 0.02CV

|                                    |          |     |     |   |     |
|------------------------------------|----------|-----|-----|---|-----|
| Rated Voltage DC (V <sub>R</sub> ) | ≤ +85°C: | 1.8 | 2.5 | 4 | 6.3 |
|------------------------------------|----------|-----|-----|---|-----|

|                                    |           |     |     |   |   |
|------------------------------------|-----------|-----|-----|---|---|
| Category Voltage (V <sub>C</sub> ) | ≤ +125°C: | 0.9 | 1.3 | 2 | 3 |
|------------------------------------|-----------|-----|-----|---|---|

|                                 |          |     |     |     |   |
|---------------------------------|----------|-----|-----|-----|---|
| Surge Voltage (V <sub>S</sub> ) | ≤ +85°C: | 2.3 | 3.3 | 5.2 | 8 |
|---------------------------------|----------|-----|-----|-----|---|

|                                 |           |     |     |     |   |
|---------------------------------|-----------|-----|-----|-----|---|
| Surge Voltage (V <sub>S</sub> ) | ≤ +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>, 0.1Ω/V series impedance, 60% confidence level  
Meets requirements of AEC-Q200



# OxiCap® NOM Low ESR Multianodes



## 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) |
| 220         | 227  |                                                                                 |          |          | E(40)    |
| 330         | 337  |                                                                                 |          | E(35)    | E(23,35) |
| 470         | 477  |                                                                                 | E(30)    | E(23,30) |          |
| 680         | 687  | E(23)                                                                           | E(23)    |          |          |

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.



LEAD-FREE

LEAD-FREE COMPATIBLE  
COMPONENT



RoHS  
COMPLIANT



NON-BURN  
NON-SMOKE

### RATINGS & PART NUMBER REFERENCE

| AVX<br>Part No.                                       | Case<br>Size | Capacitance<br>(μF) | Rated<br>Voltage<br>(V) | DCL<br>(μA)<br>Max. | DF<br>%<br>Max. | ESR<br>Max. (mΩ)<br>@100kHz | MSL | 100kHz RMS Current (A) |       |       | 100kHz RMS Voltage (V) |       |       |
|-------------------------------------------------------|--------------|---------------------|-------------------------|---------------------|-----------------|-----------------------------|-----|------------------------|-------|-------|------------------------|-------|-------|
|                                                       |              |                     |                         |                     |                 |                             |     | 25°C                   | 85°C  | 125°C | 25°C                   | 85°C  | 125°C |
| 1.8 Volt @ 85°C (1.2 Volt @ 105°C / 0.9 Volt @ 125°C) |              |                     |                         |                     |                 |                             |     |                        |       |       |                        |       |       |
| NOME687M001#0023                                      | E            | 680                 | 1.8                     | 24.5                | 6               | 23                          | 3   | 3.753                  | 3.378 | 1.501 | 0.086                  | 0.078 | 0.035 |
| 2.5 Volt @ 85°C (1.7 Volt @ 105°C / 1.3 Volt @ 125°C) |              |                     |                         |                     |                 |                             |     |                        |       |       |                        |       |       |
| NOME477M002#0030                                      | E            | 470                 | 2.5                     | 23.5                | 10              | 30                          | 3   | 3.286                  | 2.958 | 1.315 | 0.099                  | 0.089 | 0.039 |
| NOME687M002#0023                                      | E            | 680                 | 2.5                     | 34                  | 6               | 23                          | 3   | 3.753                  | 3.378 | 1.501 | 0.086                  | 0.078 | 0.035 |
| 4 Volt @ 85°C (2.6 Volt @ 105°C / 2 Volt @ 125°C)     |              |                     |                         |                     |                 |                             |     |                        |       |       |                        |       |       |
| NOME337M004#0035                                      | E            | 330                 | 4                       | 26.4                | 8               | 35                          | 3   | 3.043                  | 2.738 | 1.217 | 0.106                  | 0.096 | 0.043 |
| NOME477M004#0023                                      | E            | 470                 | 4                       | 37.6                | 6               | 23                          | 3   | 3.753                  | 3.378 | 1.501 | 0.086                  | 0.078 | 0.035 |
| NOME477M004#0030                                      | E            | 470                 | 4                       | 37.6                | 6               | 30                          | 3   | 3.286                  | 2.958 | 1.315 | 0.099                  | 0.089 | 0.039 |
| 6.3 Volt @ 85°C (4 Volt @ 105°C / 3 Volt @ 125°C)     |              |                     |                         |                     |                 |                             |     |                        |       |       |                        |       |       |
| NOME227M006#0040                                      | E            | 220                 | 6.3                     | 26.4                | 12              | 40                          | 3   | 2.846                  | 2.561 | 1.138 | 0.114                  | 0.102 | 0.046 |
| NOME337M006#0023                                      | E            | 330                 | 6.3                     | 39.6                | 6               | 23                          | 3   | 3.753                  | 3.378 | 1.501 | 0.086                  | 0.078 | 0.035 |
| NOME337M006#0035                                      | E            | 330                 | 6.3                     | 39.6                | 6               | 35                          | 3   | 3.043                  | 2.738 | 1.217 | 0.106                  | 0.096 | 0.043 |

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.

ESR allowed to move up to 125 times catalog limit post mounting.

For typical weight and composition see page 150.

**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.**