

# CoreCap® NPV Series

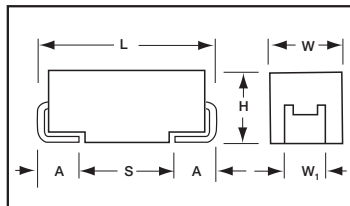
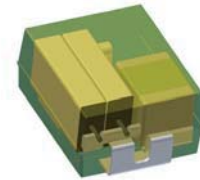


## NbO - Ceramic Multianode Chip Capacitors



- Multi-anode construction
- Super low ESR
- Non-burn safe technology
- 3x reflow 260°C compatible
- V-Core filtering and power supply applications (e.g. servers, notebooks etc.)
- CV range: 330-560µF / 2.5-4V

### NPV MULTIANODE CONSTRUCTION



For part marking see page 130

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

### HOW TO ORDER

**NPV**

Type

**V**

Case Size  
See table above

**567**

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

**M**

Tolerance  
M=±20%

**002**

Rated DC Voltage  
002=2.5Vdc  
004=4Vdc

**#**

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

**0003**

ESR in mΩ

### TECHNICAL SPECIFICATIONS

Technical Data:

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

Capacitance Range: 330 µF to 560 µF

Capacitance Tolerance: ±20%

Leakage Current: 0.02CV (CV = capacitance x voltage)

Voltage Range (V<sub>R</sub>) ≤ +85°C: 2.5 4

Category Voltage (V<sub>C</sub>) ≤ +105°C: 1.7 2.7

Temperature Range: -55°C to +105°C with category voltage

ESL: Typically 2.5nH below 10MHz

Reliability: 0.2% per 1000 hours at 85°C, 1xV<sub>R</sub> with 0.1Ω/V series impedance with 60% confidence level

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## NbO - Ceramic Multianode Chip Capacitors

### CAPACITANCE AND RATED VOLTAGE, VR (VOLTAGE CODE) RANGE (LETTER DENOTES CASE SIZE)

| Capacitance |      | Rated Voltage DC to 85°C / 0.66 Vr to 125°C |        |          |         |         |
|-------------|------|---------------------------------------------|--------|----------|---------|---------|
| μF          | Code | 2.5V (e)                                    | 4V (G) | 6.3V (J) | 10V (A) | 16V (C) |
| 330         | 337  |                                             | V (3)  |          |         |         |
| 470         | 477  |                                             | V (3)  |          |         |         |
| 560         | 567  | V (3)                                       |        |          |         |         |
| 680         | 687  |                                             |        |          |         |         |
| 1000        | 108  |                                             |        |          |         |         |

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>@300kHz | MSL | 100kHz RMS Current (mA) |      |       | 100kHz RMS Voltage (mV) |      |       |
|------------------------------------|--------------|---------------------|-------------------------|---------------------|-----------------|-----------------------------|-----|-------------------------|------|-------|-------------------------|------|-------|
|                                    |              |                     |                         |                     |                 |                             |     | 25°C                    | 85°C | 125°C | 25°C                    | 85°C | 125°C |
| 2.5 Volt @ 85°C (1.7 Volt @ 105°C) |              |                     |                         |                     |                 |                             |     |                         |      |       |                         |      |       |
| NPVV567M002#0003                   | V            | 560                 | 2.5                     | 28                  | 6               | 3                           | 3   | 4619                    | 4157 | 1848  | 14                      | 12   | 6     |
| 4 Volt @ 85°C (2.7 Volt @ 105°C)   |              |                     |                         |                     |                 |                             |     |                         |      |       |                         |      |       |
| NPVV337M004#0003                   | V            | 330                 | 4                       | 26.4                | 6               | 3                           | 3   | 4619                    | 4157 | 1848  | 14                      | 12   | 6     |
| NPVV477M004#0003                   | V            | 470                 | 4                       | 37.6                | 6               | 3                           | 3   | 4619                    | 4157 | 1848  | 14                      | 12   | 6     |

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 catalog 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.**

### ESR VS FREQUENCY PLOTS – TYPICAL

