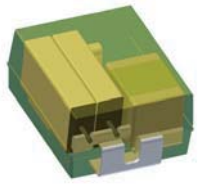
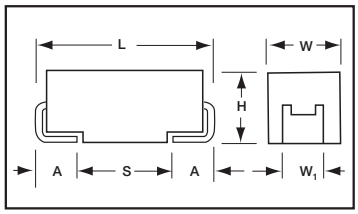
# CoreCap® NPV Series

## 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) -0.10 (0.004) | H+0.20 (0.008) -0.10 (0.004) | $W_1$±0.20 (0.008) | A+0.30 (0.012) -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) |
| $W_1$ dimension applies to the termination width for A dimensional area only. | | | | | | | | |

### HOW TO ORDER

| NPV | V | 567 | M | 002 | # | 0003 |
|---|---|---|---|---|---|---|
| **Type** | **Case Size** See table above | **Capacitance Code** pF code: 1st two digits represent significant figures, 3rd digit represents multiplier | **Tolerance** M=±20% | **Rated DC Voltage** 002=2.5Vdc 004=4Vdc | **Packaging** R = Pure Tin 7" Reel S = Pure Tin 13" Reel | **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 ($V_R$) | ≤ +85°C: | 2.5 | 4 | |
| Category Voltage ($V_C$) | ≤ +105ºC: | 1.7 | 2.7 | |
| Temperature Range: | | -55ºC to +105ºC with category voltage | | |
| ESL: | | Typically 2.5nH below 10MHz | | |
| Reliability: | | 0.2% per 1000 hours at 85ºC, 1x$V_R$ with 0.1Ω/V series impedance with 60% confidence level | | |

# CoreCap® NPV Series

## 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 Part No. | Case Size | Capacitance (µF) | Rated Voltage (V) | DCL (µA) Max. | DF % Max. | ESR Max. (mΩ) @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.

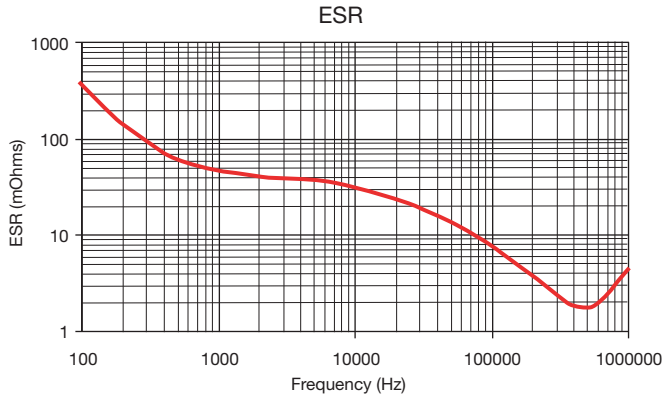
All technical data relates to an ambient temperature of +25°C. Capacitance and DF are measured at 120Hz, 0.5V RMS with a maximum DC bias of 2.2 volts. DCL is measured at rated voltage after 5 minutes.

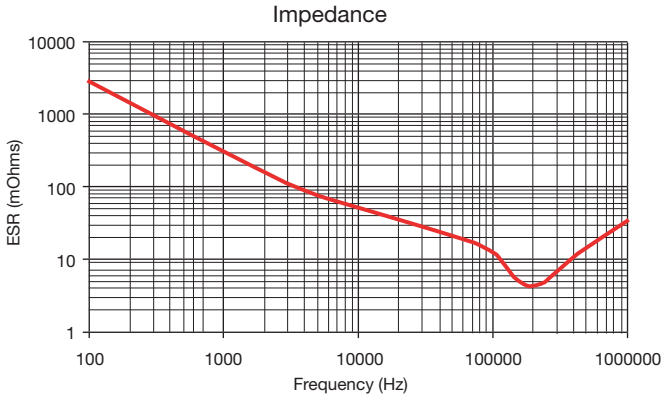
The EIA & CECC standards for low ESR solid Tantalum Capacitors allow an ESR movement to 1.25 times catalog limit post mounting.

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



# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

AVX:

NPVV567M002R0003 NPVV337M004R0003 NPVV477M004R0003