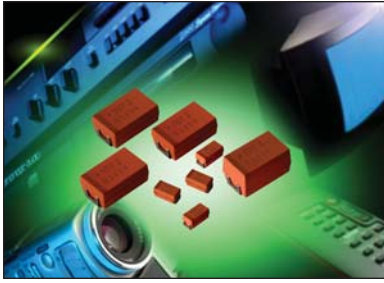


# OxiCap® NOJ Series



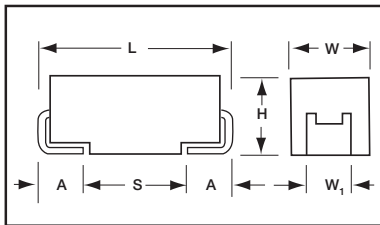
## Niobium Oxide Capacitor



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



Elektra Award  
2005



For part marking see page 169

### CASE DIMENSIONS: millimeters (inches)

| Code | EIA Code | EIA Metric | L $\pm$ 0.20 (0.008) | W $\pm$ 0.20 (0.008)<br>-0.10 (0.004) | H $\pm$ 0.20 (0.008)<br>-0.10 (0.004) | W $\pm$ 0.20 (0.008) | A $\pm$ 0.30 (0.012)<br>-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) |

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

### HOW TO ORDER

|             |                                     |  |                            |  |   |   |   |
|-------------|-------------------------------------|--|----------------------------|--|---|---|---|
| <b>NOJ</b>  | <b>D</b>                            | <b>107</b>   | <b>M</b>                   | <b>006</b>   | <b>R</b>  | <b>WJ</b>   | <b>-</b>  |
| <b>Type</b> | <b>Case Size</b><br>See table above | <b>Capacitance Code</b><br>1st two digits represent significant figures, 3rd digit represents multiplier in pF | <b>Tolerance</b><br>M=±20% | <b>Rated DC Voltage</b><br>001 = 1.8Vdc<br>002 = 2.5Vdc<br>004 = 4Vdc<br>006 = 6.3Vdc<br>010 = 10Vdc | <b>Packaging</b><br>R = Pure Tin 7" Reel<br>S = Pure Tin 13" Reel | <b>Specification Suffix</b><br>WJ = Standard Suffix | <b>Additional characters may be added for special requirements</b><br>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 $\mu$ F to 1000 $\mu$ F  |     |     |     |     |    |  |
| Capacitance Tolerance:             | ±20%   |     |     |     |     |    |  |
| Leakage Current DCL:               | 0.02CV   |     |     |     |     |    |  |
| Rated Voltage DC (V <sub>R</sub> ) | ≤ +85°C:   | 1.8 | 2.5 | 4   | 6.3 | 10 |  |
| Category Voltage (V <sub>C</sub> ) | ≤ +105°C:  | 1.2 | 1.7 | 2.7 | 4   | 7  |  |
| Surge Voltage (V <sub>S</sub> )    | ≤ +85°C:   | 2.3 | 3.3 | 5.2 | 8   | 13 |  |
| Surge Voltage (V <sub>S</sub> )    | ≤ +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 <sub>R</sub> , 0.1 $\Omega$ /V series impedance, 60% confidence level<br>Meets requirements of AEC-Q200 |     |     |     |     |    |  |

# OxiCap® NOJ Series



## 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 |          |            |              |            |
|-------------|------|---|----------|------------|--------------|------------|
| 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        |            |
| 330         | 337  | C   | C/D      | D          | D/E          |            |
| 470         | 477  |   | D/E      | D/E        | E/V/E(75)    |            |
| 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

## 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 |
| <b>1.8 Volt @ 85°C (1.2 Volt @ 105°C)</b> |           |                  |                   |               |           |                      |     |                        |       |       |                        |       |       |
| NOJA476M001#WJ                            | A         | 47               | 1.8               | 1.7           | 8         | 1.6                  | 1   | 0.237                  | 0.213 | 0.095 | 0.379                  | 0.342 | 0.152 |
| NOJB476M001#WJ                            | B         | 47               | 1.8               | 1.7           | 6         | 1.6                  | 1   | 0.252                  | 0.227 | 0.101 | 0.404                  | 0.364 | 0.162 |
| NOJB686M001#WJ                            | B         | 68               | 1.8               | 2.5           | 6         | 1.5                  | 1   | 0.261                  | 0.235 | 0.104 | 0.391                  | 0.352 | 0.156 |
| NOJB107M001#WJ                            | B         | 100              | 1.8               | 3.6           | 6         | 1.4                  | 1   | 0.270                  | 0.243 | 0.108 | 0.378                  | 0.340 | 0.151 |
| NOJC107M001#WJ                            | C         | 100              | 1.8               | 3.6           | 6         | 0.4                  | 1   | 0.574                  | 0.517 | 0.230 | 0.230                  | 0.207 | 0.092 |
| NOJC157M001#WJ                            | C         | 150              | 1.8               | 5.4           | 8         | 0.4                  | 1   | 0.574                  | 0.517 | 0.230 | 0.230                  | 0.207 | 0.092 |
| NOJC227M001#WJ                            | C         | 220              | 1.8               | 8.0           | 8         | 0.4                  | 1   | 0.574                  | 0.517 | 0.230 | 0.230                  | 0.207 | 0.092 |
| NOJC337M001#WJ                            | C         | 330              | 1.8               | 11.9          | 8         | 0.3                  | 1   | 0.663                  | 0.597 | 0.265 | 0.199                  | 0.179 | 0.080 |
| <b>2.5 Volt @ 85°C (1.7 Volt @ 105°C)</b> |           |                  |                   |               |           |                      |     |                        |       |       |                        |       |       |
| NOJA226M002#WJ                            | A         | 22               | 2.5               | 1.1           | 6         | 1.9                  | 1   | 0.218                  | 0.196 | 0.087 | 0.414                  | 0.372 | 0.165 |
| NOJA336M002#WJ                            | A         | 33               | 2.5               | 1.7           | 6         | 1.7                  | 1   | 0.230                  | 0.207 | 0.092 | 0.391                  | 0.352 | 0.156 |
| NOJB336M002#WJ                            | B         | 33               | 2.5               | 1.7           | 6         | 1.7                  | 1   | 0.245                  | 0.220 | 0.098 | 0.416                  | 0.375 | 0.167 |
| NOJA476M002#WJ                            | A         | 47               | 2.5               | 2.4           | 8         | 1.6                  | 1   | 0.237                  | 0.213 | 0.095 | 0.379                  | 0.342 | 0.152 |
| NOJB476M002#WJ                            | B         | 47               | 2.5               | 2.4           | 6         | 1.6                  | 1   | 0.252                  | 0.227 | 0.101 | 0.404                  | 0.364 | 0.162 |
| NOJB686M002#WJ                            | B         | 68               | 2.5               | 3.4           | 6         | 1.5                  | 1   | 0.261                  | 0.235 | 0.104 | 0.391                  | 0.352 | 0.156 |
| NOJC686M002#WJ                            | C         | 68               | 2.5               | 3.4           | 6         | 0.5                  | 1   | 0.514                  | 0.462 | 0.206 | 0.257                  | 0.231 | 0.103 |
| NOJB107M002#WJ                            | B         | 100              | 2.5               | 5.0           | 6         | 1.4                  | 1   | 0.270                  | 0.243 | 0.108 | 0.378                  | 0.340 | 0.151 |
| NOJC107M002#WJ                            | C         | 100              | 2.5               | 5.0           | 6         | 0.4                  | 1   | 0.574                  | 0.517 | 0.230 | 0.230                  | 0.207 | 0.092 |
| NOJC157M002#WJ                            | C         | 150              | 2.5               | 7.5           | 6         | 0.4                  | 1   | 0.574                  | 0.517 | 0.230 | 0.230                  | 0.207 | 0.092 |
| NOJC227M002#WJ                            | C         | 220              | 2.5               | 11.0          | 8         | 0.4                  | 1   | 0.574                  | 0.517 | 0.230 | 0.230                  | 0.207 | 0.092 |
| NOJC337M002#WJ                            | C         | 330              | 2.5               | 16.5          | 10        | 0.3                  | 1   | 0.663                  | 0.597 | 0.265 | 0.199                  | 0.179 | 0.080 |
| NOJD337M002#WJ                            | D         | 330              | 2.5               | 16.5          | 10        | 0.3                  | 3   | 0.775                  | 0.697 | 0.310 | 0.232                  | 0.209 | 0.093 |
| NOJD477M002#WJ                            | D         | 470              | 2.5               | 23.5          | 12        | 0.3                  | 3   | 0.775                  | 0.697 | 0.310 | 0.232                  | 0.209 | 0.093 |
| NOJE477M002#WJ                            | E         | 470              | 2.5               | 23.5          | 10        | 0.3                  | 3   | 0.812                  | 0.731 | 0.325 | 0.244                  | 0.219 | 0.097 |
| NOJE687M002#WJ                            | E         | 680              | 2.5               | 34.0          | 14        | 0.3                  | 3   | 0.812                  | 0.731 | 0.325 | 0.244                  | 0.219 | 0.097 |
| NOJV108M002#WJ                            | V         | 1000             | 2.5               | 50.0          | 16        | 0.3                  | 3   | 1.000                  | 0.900 | 0.400 | 0.300                  | 0.270 | 0.120 |
| <b>4 Volt @ 85°C (2.7 Volt @ 105°C)</b>   |           |                  |                   |               |           |                      |     |                        |       |       |                        |       |       |
| NOJA156M004#WJ                            | A         | 15               | 4                 | 1.2           | 6         | 2                    | 1   | 0.212                  | 0.191 | 0.085 | 0.424                  | 0.382 | 0.170 |
| NOJA226M004#WJ                            | A         | 22               | 4                 | 1.8           | 6         | 1.9                  | 1   | 0.218                  | 0.196 | 0.087 | 0.414                  | 0.372 | 0.165 |
| NOJB226M004#WJ                            | B         | 22               | 4                 | 1.8           | 6         | 1.9                  | 1   | 0.232                  | 0.209 | 0.093 | 0.440                  | 0.396 | 0.176 |
| NOJA336M004#WJ                            | A         | 33               | 4                 | 2.6           | 10        | 1.7                  | 1   | 0.230                  | 0.207 | 0.092 | 0.391                  | 0.352 | 0.156 |
| NOJB336M004#WJ                            | B         | 33               | 4                 | 2.6           | 6         | 1.7                  | 1   | 0.245                  | 0.220 | 0.098 | 0.416                  | 0.375 | 0.167 |
| NOJA476M004#WJ                            | A         | 47               | 4                 | 3.8           | 18        | 2.2                  | 1   | 0.202                  | 0.182 | 0.081 | 0.445                  | 0.400 | 0.178 |
| NOJB476M004#WJ                            | B         | 47               | 4                 | 3.8           | 6         | 1.6                  | 1   | 0.252                  | 0.227 | 0.101 | 0.404                  | 0.364 | 0.162 |
| NOJC476M004#WJ                            | C         | 47               | 4                 | 3.8           | 6         | 0.5                  | 1   | 0.514                  | 0.462 | 0.206 | 0.257                  | 0.231 | 0.103 |
| NOJB686M004#WJ                            | B         | 68               | 4                 | 5.4           | 6         | 1.5                  | 1   | 0.261                  | 0.235 | 0.104 | 0.391                  | 0.352 | 0.156 |
| NOJC686M004#WJ                            | C         | 68               | 4                 | 5.4           | 6         | 0.5                  | 1   | 0.514                  | 0.462 | 0.206 | 0.257                  | 0.231 | 0.103 |
| NOJB107M004#WJ                            | B         | 100              | 4                 | 8.0           | 16        | 1.4                  | 1   | 0.270                  | 0.243 | 0.108 | 0.378                  | 0.340 | 0.151 |
| NOJB107M004#WB                            | B         | 100              | 4                 | 8.0           | 16        | 0.25                 | 3   | 0.639                  | 0.575 | 0.255 | 0.160                  | 0.144 | 0.064 |
| NOJC107M004#WJ                            | C         | 100              | 4                 | 8.0           | 6         | 0.4                  | 1   | 0.574                  | 0.517 | 0.230 | 0.230                  | 0.207 | 0.092 |
| NOJC157M004#WJ                            | C         | 150              | 4                 | 12.0          | 6         | 0.4                  | 1   | 0.574                  | 0.517 | 0.230 | 0.230                  | 0.207 | 0.092 |
| NOJD157M004#WJ                            | D         | 150              | 4                 | 12.0          | 6         | 0.3                  | 3   | 0.775                  | 0.697 | 0.310 | 0.232                  | 0.209 | 0.093 |
| NOJC227M004#WJ                            | C         | 220              | 4                 | 17.6          | 8         | 0.4                  | 1   | 0.574                  | 0.517 | 0.230 | 0.230                  | 0.207 | 0.092 |
| NOJD227M004#WJ                            | D         | 220              | 4                 | 17.6          | 8         | 0.4                  | 3   | 0.671                  | 0.604 | 0.268 | 0.268                  | 0.241 | 0.107 |
| NOJD337M004#WJ                            | D         | 330              | 4                 | 26.4          | 8         | 0.3                  | 3   | 0.775                  | 0.697 | 0.310 | 0.232                  | 0.209 | 0.093 |
| NOJD477M004#WJ                            | D         | 470              | 4                 | 37.6          | 12        | 0.3                  | 3   | 0.775                  | 0.697 | 0.310 | 0.232                  | 0.209 | 0.093 |
| NOJE477M004#WJ                            | E         | 470              | 4                 | 37.6          | 12        | 0.3                  | 3   | 0.812                  | 0.731 | 0.325 | 0.244                  | 0.219 | 0.097 |
| NOJE687M004#WJ                            | E         | 680              | 4                 | 54.4          | 14        | 0.3                  | 3   | 0.812                  | 0.731 | 0.325 | 0.244                  | 0.219 | 0.097 |
| NOJV687M004#WJ                            | V         | 680              | 4                 | 54.4          | 14        | 0.3                  | 3   | 1.000                  | 0.900 | 0.400 | 0.300                  | 0.270 | 0.120 |
| NOJV108M004#WJ                            | V         | 1000             | 4                 | 80.0          | 18        | 0.3                  | 3   | 1.000                  | 0.900 | 0.400 | 0.300                  | 0.270 | 0.120 |
| <b>6.3 Volt @ 85°C (4 Volt @ 105°C)</b>   |           |                  |                   |               |           |                      |     |                        |       |       |                        |       |       |
| NOJA475M006#WJ                            | A         | 4.7              | 6.3               | 1.1           | 6         | 3.2                  | 1   | 0.168                  | 0.151 | 0.067 | 0.537                  | 0.483 | 0.215 |
| NOJA685M006#WJ                            | A         | 6.8              | 6.3               | 1.1           | 6         | 2.6                  | 1   | 0.186                  | 0.167 | 0.074 | 0.484                  | 0.435 | 0.193 |
| NOJA106M006#WJ                            | A         | 10               | 6.3               | 1.2           | 6         | 2.2                  | 1   | 0.202                  | 0.182 | 0.081 | 0.445                  | 0.400 | 0.178 |
| NOJA156M006#WJ                            | A         | 15               | 6.3               | 1.8           | 8         | 2                    | 1   | 0.212                  | 0.191 | 0.085 | 0.424                  | 0.382 | 0.170 |
| NOJB156M006#WJ                            | B         | 15               | 6.3               | 1.8           | 6         | 2                    | 1   | 0.226                  | 0.203 | 0.090 | 0.452                  | 0.406 | 0.181 |
| NOJA226M006#WJ                            | A         | 22               | 6.3               | 2.6           | 8         | 1.8                  | 1   | 0.224                  | 0.201 | 0.089 | 0.402                  | 0.362 | 0.161 |
| NOJB226M006#WJ                            | B         | 22               | 6.3               | 2.6           | 6         | 1.9                  | 1   | 0.232                  | 0.209 | 0.093 | 0.440                  | 0.396 | 0.176 |
| NOJB336M006#WJ                            | B         | 33               | 6.3               | 4.0           | 6         | 1.7                  | 1   | 0.245                  | 0.220 | 0.098 | 0.416                  | 0.375 | 0.167 |

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.

For typical weight and composition see page 162.

**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.**

# 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 |
| <b>6.3 Volt @ 85°C (4 Volt @ 105°C)</b> |           |                  |                   |               |           |                      |     |                        |       |       |                        |       |       |
| NOJB336M006#WB                          | B         | 33               | 6.3               | 4.0           | 6         | 0.7                  | 3   | 0.382                  | 0.344 | 0.153 | 0.267                  | 0.240 | 0.107 |
| 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         | 0.8                  | 1   | 0.357                  | 0.321 | 0.143 | 0.286                  | 0.257 | 0.114 |
| 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                  | 3   | 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 |
| NOJE477M006#WB                          | E         | 470              | 6.3               | 56.4          | 16        | 0.075                | 3   | 1.625                  | 1.462 | 0.650 | 0.122                  | 0.110 | 0.049 |
| NOJV477M006#WJ                          | V         | 470              | 6.3               | 56.4          | 14        | 0.3                  | 3   | 1.000                  | 0.900 | 0.400 | 0.300                  | 0.270 | 0.120 |
| <b>10 Volt @ 85°C (7 Volt @ 105°C)</b>  |           |                  |                   |               |           |                      |     |                        |       |       |                        |       |       |
| 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         | 1                    | 1   | 0.319                  | 0.287 | 0.128 | 0.319                  | 0.287 | 0.128 |
| 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                  | 3   | 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 |

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 capacitors allow an ESR movement to 1.25 times catalog limit post mounting.

For typical weight and composition see page 162.

**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.**