

# TAJ Series

## Standard Tantalum



### FEATURES

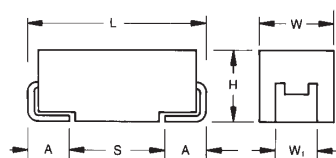
- General purpose SMT chip tantalum series
- 7 case sizes available
- Low profile options available
- CV range: 0.10-2200 $\mu$ F / 2.5-50V

### APPLICATIONS

- General low power DC/DC and LDO



SnPb termination option is not RoHS compliant.



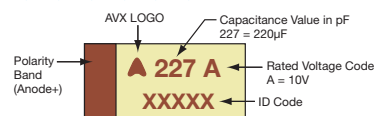
### CASE DIMENSIONS: millimeters (inches)

| Code | EIA Code | EIA Metric | L $\pm$ 0.20 (0.008) | W $\pm$ 0.20 (0.008) -0.10 (0.004) | H $\pm$ 0.20 (0.008) -0.10 (0.004) | W $\pm$ 0.20 (0.008) | A $\pm$ 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) |
| U    | 2924     | 7361-43    | 7.30 (0.287)         | 6.10 (0.240)                       | 4.10 (0.162)                       | 3.10 (0.120)         | 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.

### MARKING

#### A, B, C, D, E, U, V CASE



### HOW TO ORDER

| TAJ  | C                            | 106                                                                                                                                      | M                                           | 035                                                                                                                                                      | R                                                                                                                                                                                                                                           | NJ                                           | -                                                                                                        |
|------|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Type | Case Size<br>See table above | Capacitance Code<br>pF code: 1st two digits represent significant figures<br>3rd digit represents multiplier (number of zeros to follow) | Tolerance<br>K = $\pm$ 10%<br>M = $\pm$ 20% | Rated DC Voltage<br>002 = 2.5Vdc<br>004 = 4Vdc<br>006 = 6.3Vdc<br>010 = 10Vdc<br>016 = 16Vdc<br>020 = 20Vdc<br>025 = 25Vdc<br>035 = 35Vdc<br>050 = 50Vdc | Packaging<br>R = Pure Tin 7" Reel<br>S = Pure Tin 13" Reel<br>A = Gold Plating 7" Reel<br>B = Gold Plating 13" Reel<br>H = Tin Lead 7" Reel<br>(Contact Manufacturer)<br>K = Tin Lead 13" Reel<br>(Contact Manufacturer)<br>H, K = Non RoHS | Specification Suffix<br>NJ = Standard Suffix | Additional characters may be added for special requirements<br>V = Dry pack Option (selected codes only) |

### TECHNICAL SPECIFICATIONS

Technical Data:

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

Capacitance Range: 0.10  $\mu$ F to 2200  $\mu$ F

Capacitance Tolerance:  $\pm$ 10%;  $\pm$ 20%

| Rated Voltage (V <sub>R</sub> )    | $\leq$ +85°C:  | 2.5 | 4   | 6.3 | 10 | 16 | 20 | 25 | 35 | 50 |
|------------------------------------|----------------|-----|-----|-----|----|----|----|----|----|----|
| Category Voltage (V <sub>C</sub> ) | $\leq$ +125°C: | 1.7 | 2.7 | 4   | 7  | 10 | 13 | 17 | 23 | 33 |
| Surge Voltage (V <sub>S</sub> )    | $\leq$ +85°C:  | 3.3 | 5.2 | 8   | 13 | 20 | 26 | 32 | 46 | 65 |
| Surge Voltage (V <sub>S</sub> )    | $\leq$ +125°C: | 2.2 | 3.4 | 5   | 8  | 13 | 16 | 20 | 28 | 40 |

Temperature Range: -55°C to +125°C

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

Qualification: CECC 30801 - 005 issue 2

EIA 535BAAC

Termination Finished: Sn Plating (standard), Gold and SnPb Plating upon request

For AEC-Q200 availability, please contact AVX



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

| Capacitance |      | Rated voltage DC (V <sub>R</sub> ) to 85°C |                       |                                    |                         |                       |                        |                       |         |         |
|-------------|------|--------------------------------------------|-----------------------|------------------------------------|-------------------------|-----------------------|------------------------|-----------------------|---------|---------|
| μF          | Code | 2.5V (e)                                   | 4V (G)                | 6.3V (J)                           | 10V (A)                 | 16V (C)               | 20V (D)                | 25V (E)               | 35V (V) | 50V (T) |
| 0.10        | 104  |                                            |                       |                                    |                         |                       |                        |                       | A       | A       |
| 0.15        | 154  |                                            |                       |                                    |                         |                       |                        |                       | A       | A/B     |
| 0.22        | 224  |                                            |                       |                                    |                         |                       |                        |                       | A       | A/B     |
| 0.33        | 334  |                                            |                       |                                    |                         |                       |                        |                       | A       | A/B     |
| 0.47        | 474  |                                            |                       |                                    |                         |                       |                        | A                     | A/B     | A/B/C   |
| 0.68        | 684  |                                            |                       |                                    |                         |                       | A                      | A                     | A/B     | A/B/C   |
| 1.0         | 105  |                                            |                       |                                    |                         | A                     | A                      | A                     | A/B     | A/B/C   |
| 1.5         | 155  |                                            |                       |                                    | A                       | A                     | A                      | A/B                   | A/B/C   | B/C/D   |
| 2.2         | 225  |                                            |                       | A                                  | A                       | A/B                   | A/B                    | A/B                   | A/B/C   | B/C/D   |
| 3.3         | 335  |                                            |                       | A                                  | A                       | A/B                   | A/B                    | A/B/C                 | B/C     | C/D     |
| 4.7         | 475  |                                            | A                     | A                                  | A/B                     | A/B                   | A/B/C                  | A/B/C                 | B/C/D   | C/D     |
| 6.8         | 685  |                                            | A                     | A/B                                | A/B                     | A/B/C                 | A/B/C                  | B/C                   | C/D     | C/D     |
| 10          | 106  |                                            | A                     | A/B                                | A/B/C                   | A/B/C                 | A <sup>(M)</sup> */B/C | B/C/D                 | C/D/E   | D/E/V   |
| 15          | 156  |                                            | A/B                   | A/B                                | A/B/C                   | A <sup>(M)</sup> /B/C | B/C/D                  | C/D                   | C/D     | D/E/V   |
| 22          | 226  |                                            | A                     | A/B/C                              | A/B/C                   | B/C/D                 | B/C/D                  | C/D                   | D/E     | V       |
| 33          | 336  | A                                          | A/B                   | A/B/C                              | A/B/C/D                 | B/C/D                 | C/D                    | C/D/E                 | D/E/V   |         |
| 47          | 476  | A                                          | A/B                   | A/B/C/D                            | B/C/D                   | C/D                   | C/D/E                  | D/E                   | E/V     |         |
| 68          | 686  | A                                          | A/B/C                 | B/C/D                              | B/C/D                   | C/D                   | C <sup>(M)</sup> /D/E  | D <sup>(M)</sup> /E/V | V       |         |
| 100         | 107  | A/B                                        | A/B/C                 | B/C/D                              | B <sup>(M)</sup> /C/D/E | C/D/E                 | D/E/V                  | E <sup>(M)</sup> /V   |         |         |
| 150         | 157  | B                                          | B/C                   | B <sup>(M)</sup> /C/D              | C/D/E                   | D/E/V                 | E/V                    | V <sup>(M)</sup>      |         |         |
| 220         | 227  | B/D                                        | B <sup>(M)</sup> /C/D | C/D/E                              | C/D/E                   | E/V                   |                        |                       |         |         |
| 330         | 337  | D                                          | C/D/E                 | C/D/E                              | D/E/V                   | E <sup>(M)</sup>      |                        |                       |         |         |
| 470         | 477  | C/D                                        | C/D/E                 | D/E/V                              | E/U/V                   |                       |                        |                       |         |         |
| 680         | 687  | C/D/E                                      | D/E                   | E/V                                |                         |                       |                        |                       |         |         |
| 1000        | 108  | D <sup>(M)</sup> /E                        | D/E/V                 | E <sup>(M)</sup> /V <sup>(M)</sup> |                         |                       |                        |                       |         |         |
| 1500        | 158  | D/E/V <sup>(M)</sup>                       | E/V <sup>(M)</sup>    |                                    |                         |                       |                        |                       |         |         |
| 2200        | 228  | V <sup>(M)</sup>                           |                       |                                    |                         |                       |                        |                       |         |         |

Not recommended for new designs, higher voltage or smaller case size substitution are offered.

Released codes <sup>(M)</sup> tolerance only

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.

### RATINGS & PART NUMBER REFERENCE

| AVX<br>Part No. | Case<br>Size | Capacitance<br>(μF) | Rated<br>Voltage<br>(V) | Rated<br>Temperature<br>(°C) | Category<br>Voltage<br>(V) | Category<br>Temperature<br>(°C) | DCL<br>(μA)<br>Max. | DF<br>%<br>Max. | ESR<br>Max. (Ω)<br>@ 100kHz | MSL             | 100kHz RMS Current (mA) |      |       |  |
|-----------------|--------------|---------------------|-------------------------|------------------------------|----------------------------|---------------------------------|---------------------|-----------------|-----------------------------|-----------------|-------------------------|------|-------|--|
|                 |              |                     |                         |                              |                            |                                 |                     |                 |                             |                 | 25°C                    | 85°C | 125°C |  |
| 2.5 Volt @ 85°C |              |                     |                         |                              |                            |                                 |                     |                 |                             |                 |                         |      |       |  |
| TAJA336*002#NJ  | A            | 33                  | 2.5                     | 85                           | 1.7                        | 125                             | 0.8                 | 8               | 1.7                         | 1               | 210                     | 189  | 84    |  |
| TAJA476*002#NJ  | A            | 47                  | 2.5                     | 85                           | 1.7                        | 125                             | 0.9                 | 6               | 3                           | 1               | 158                     | 142  | 63    |  |
| TAJA686*002#NJ  | A            | 68                  | 2.5                     | 85                           | 1.7                        | 125                             | 1.4                 | 8               | 1.5                         | 1               | 224                     | 201  | 89    |  |
| TAJA107*002#NJ  | A            | 100                 | 2.5                     | 85                           | 1.7                        | 125                             | 2.5                 | 30              | 1.4                         | 1               | 231                     | 208  | 93    |  |
| TAJB107*002#NJ  | B            | 100                 | 2.5                     | 85                           | 1.7                        | 125                             | 2.5                 | 8               | 1.4                         | 1               | 246                     | 222  | 99    |  |
| TAJB157*002#NJ  | B            | 150                 | 2.5                     | 85                           | 1.7                        | 125                             | 3                   | 10              | 1.6                         | 1               | 230                     | 207  | 92    |  |
| TAJB227*002#NJ  | B            | 220                 | 2.5                     | 85                           | 1.7                        | 125                             | 4.4                 | 16              | 1.6                         | 1               | 230                     | 207  | 92    |  |
| TAJD227*002#NJ  | D            | 220                 | 2.5                     | 85                           | 1.7                        | 125                             | 5.5                 | 8               | 0.3                         | 1               | 707                     | 636  | 283   |  |
| TAJD337*002#NJ  | D            | 330                 | 2.5                     | 85                           | 1.7                        | 125                             | 8.2                 | 8               | 0.3                         | 1               | 707                     | 636  | 283   |  |
| TAJC477*002#NJ  | C            | 470                 | 2.5                     | 85                           | 1.7                        | 125                             | 9.4                 | 12              | 0.2                         | 1               | 742                     | 667  | 297   |  |
| TAJD477*002#NJ  | D            | 470                 | 2.5                     | 85                           | 1.7                        | 125                             | 11.6                | 8               | 0.2                         | 1               | 866                     | 779  | 346   |  |
| TAJC687*002#NJ  | C            | 680                 | 2.5                     | 85                           | 1.7                        | 125                             | 17                  | 18              | 0.2                         | 1               | 742                     | 667  | 297   |  |
| TAJD687*002#NJ  | D            | 680                 | 2.5                     | 85                           | 1.7                        | 125                             | 17                  | 16              | 0.2                         | 1               | 866                     | 779  | 346   |  |
| TAJE687*002#NJ  | E            | 680                 | 2.5                     | 85                           | 1.7                        | 125                             | 17                  | 10              | 0.2                         | 1 <sup>1)</sup> | 908                     | 817  | 363   |  |
| TAJD108M002#NJ  | D            | 1000                | 2.5                     | 85                           | 1.7                        | 125                             | 25                  | 20              | 0.2                         | 1               | 866                     | 779  | 346   |  |
| TAJE108*002#NJ  | E            | 1000                | 2.5                     | 85                           | 1.7                        | 125                             | 20                  | 14              | 0.4                         | 1 <sup>1)</sup> | 642                     | 578  | 257   |  |
| TAJD158*002#NJ  | D            | 1500                | 2.5                     | 85                           | 1.7                        | 125                             | 37.5                | 60              | 0.2                         | 1               | 866                     | 779  | 346   |  |
| TAJE158*002#NJ  | E            | 1500                | 2.5                     | 85                           | 1.7                        | 125                             | 37                  | 20              | 0.2                         | 1 <sup>1)</sup> | 908                     | 817  | 363   |  |
| TAJV158M002#NJ  | V            | 1500                | 2.5                     | 85                           | 1.7                        | 125                             | 30                  | 20              | 0.2                         | 1 <sup>1)</sup> | 1118                    | 1006 | 447   |  |
| TAJV228M002#NJ  | V            | 2200                | 2.5                     | 85                           | 1.7                        | 125                             | 55                  | 50              | 0.2                         | 1 <sup>1)</sup> | 1118                    | 1006 | 447   |  |
| 4 Volt @ 85°C   |              |                     |                         |                              |                            |                                 |                     |                 |                             |                 |                         |      |       |  |
| TAJA336*004#NJ  | A            | 33                  | 4                       | 85                           | 2.7                        | 125                             | 1.3                 | 6               | 3                           | 1               | 158                     | 142  | 63    |  |
| TAJA476*004#NJ  | A            | 47                  | 4                       | 85                           | 2.7                        | 125                             | 1.9                 | 8               | 2.6                         | 1               | 170                     | 153  | 68    |  |
| TAJA686*004#NJ  | A            | 68                  | 4                       | 85                           | 2.7                        | 125                             | 2.7                 | 10              | 1.5                         | 1               | 224                     | 201  | 89    |  |
| TAJB686*004#NJ  | B            | 68                  | 4                       | 85                           | 2.7                        | 125                             | 2.7                 | 6               | 1.8                         | 1               | 217                     | 196  | 87    |  |
| TAJA107*004#NJ  | A            | 100                 | 4                       | 85                           | 2.7                        | 125                             | 4                   | 30              | 1.4                         | 1               | 231                     | 208  | 93    |  |
| TAJB107*004#NJ  | B            | 100                 | 4                       | 85                           | 2.7                        | 125                             | 4                   | 8               | 0.9                         | 1               | 307                     | 277  | 123   |  |
| TAJB157*004#NJ  | B            | 150                 | 4                       | 85                           | 2.7                        | 125                             | 6                   | 10              | 1.5                         | 1               | 238                     | 214  | 95    |  |
| TAJC157*004#NJ  | C            | 150                 | 4                       | 85                           | 2.7                        | 125                             | 6                   | 6               | 0.3                         | 1               | 606                     | 545  | 242   |  |
| TAJB227M004#NJ  | B            | 220                 | 4                       | 85                           | 2.7                        | 125                             | 8.8                 | 12              | 1.1                         | 1               | 278                     | 250  | 111   |  |
| TAJC227*004#NJ  | C            | 220                 | 4                       | 85                           | 2.7                        | 125                             | 8.8                 | 8               | 1.2                         | 1               | 303                     | 272  | 121   |  |
| TAJD227*004#NJ  | D            | 220                 | 4                       | 85                           | 2.7                        | 125                             | 8.8                 | 8               | 0.9                         | 1               | 408                     | 367  | 163   |  |
| TAJC337*004#NJ  | C            | 330                 | 4                       | 85                           | 2.7                        | 125                             | 13.2                | 8               | 0.3                         | 1               | 606                     | 545  | 242   |  |
| TAJD337*004#NJ  | D            | 330                 | 4                       | 85                           | 2.7                        | 125                             | 13.2                | 8               | 0.9                         | 1               | 408                     | 367  | 163   |  |
| TAJC477*004#NJ  | C            | 470                 | 4                       | 85                           | 2.7                        | 125                             | 18.8                | 14              | 0.3                         | 1               | 606                     | 545  | 242   |  |
| TAJD477*004#NJ  | D            | 470                 | 4                       | 85                           | 2.7                        | 125                             | 18.8                | 12              | 0.9                         | 1               | 408                     | 367  | 163   |  |
| TAJE477*004#NJ  | E            | 470                 | 4                       | 85                           | 2.7                        | 125                             | 18.8                | 10              | 0.5                         | 1 <sup>1)</sup> | 574                     | 517  | 230   |  |
| TAJD687*004#NJ  | D            | 680                 | 4                       | 85                           | 2.7                        | 125                             | 27.2                | 14              | 0.5                         | 1               | 548                     | 493  | 219   |  |
| TAJE687*004#NJ  | E            | 680                 | 4                       | 85                           | 2.7                        | 125                             | 27.2                | 14              | 0.9                         | 1 <sup>1)</sup> | 428                     | 385  | 171   |  |
| TAJD108*004#NJ  | D            | 1000                | 4                       | 85                           | 2.7                        | 125                             | 40                  | 60              | 0.2                         | 1               | 866                     | 779  | 346   |  |
| TAJE108*004#NJ  | E            | 1000                | 4                       | 85                           | 2.7                        | 125                             | 40                  | 14              | 0.4                         | 1 <sup>1)</sup> | 642                     | 578  | 257   |  |
| TAJV108*004#NJ  | V            | 1000                | 4                       | 85                           | 2.7                        | 125                             | 40                  | 16              | 0.2                         | 1 <sup>1)</sup> | 1118                    | 1006 | 447   |  |
| TAJE158*004#NJ  | E            | 1500                | 4                       | 85                           | 2.7                        | 125                             | 60                  | 30              | 0.2                         | 1 <sup>1)</sup> | 908                     | 817  | 363   |  |
| TAJV158M004#NJ  | V            | 1500                | 4                       | 85                           | 2.7                        | 125                             | 60                  | 30              | 0.2                         | 1 <sup>1)</sup> | 1118                    | 1006 | 447   |  |
| 6.3 Volt @ 85°C |              |                     |                         |                              |                            |                                 |                     |                 |                             |                 |                         |      |       |  |
| TAJA106*006#NJ  | A            | 10                  | 6.3                     | 85                           | 4                          | 125                             | 0.6                 | 6               | 4                           | 1               | 137                     | 123  | 55    |  |
| TAJA156*006#NJ  | A            | 15                  | 6.3                     | 85                           | 4                          | 125                             | 0.9                 | 6               | 3.5                         | 1               | 146                     | 132  | 59    |  |
| TAJA226*006#NJ  | A            | 22                  | 6.3                     | 85                           | 4                          | 125                             | 1.4                 | 6               | 3                           | 1               | 158                     | 142  | 63    |  |
| TAJA336*006#NJ  | A            | 33                  | 6.3                     | 85                           | 4                          | 125                             | 2.1                 | 8               | 2.2                         | 1               | 185                     | 166  | 74    |  |
| TAJA476*006#NJ  | A            | 47                  | 6.3                     | 85                           | 4                          | 125                             | 2.8                 | 10              | 1.6                         | 1               | 217                     | 195  | 87    |  |
| TAJB476*006#NJ  | B            | 47                  | 6.3                     | 85                           | 4                          | 125                             | 3                   | 6               | 2                           | 1               | 206                     | 186  | 82    |  |
| TAJC476*006#NJ  | C            | 47                  | 6.3                     | 85                           | 4                          | 125                             | 3                   | 6               | 1.6                         | 1               | 262                     | 236  | 105   |  |
| TAJB686*006#NJ  | B            | 68                  | 6.3                     | 85                           | 4                          | 125                             | 4                   | 8               | 0.9                         | 1               | 307                     | 277  | 123   |  |
| TAJC686*006#NJ  | C            | 68                  | 6.3                     | 85                           | 4                          | 125                             | 4.3                 | 6               | 1.5                         | 1               | 271                     | 244  | 108   |  |
| TAJB107*006#NJ  | B            | 100                 | 6.3                     | 85                           | 4                          | 125                             | 6.3                 | 10              | 1.7                         | 1               | 224                     | 201  | 89    |  |
| TAJC107*006#NJ  | C            | 100                 | 6.3                     | 85                           | 4                          | 125                             | 6.3                 | 6               | 0.9                         | 1               | 350                     | 315  | 140   |  |
| TAJB157M006#NJ  | B            | 150                 | 6.3                     | 85                           | 4                          | 125                             | 9.5                 | 10              | 1.2                         | 1               | 266                     | 240  | 106   |  |
| TAJC157*006#NJ  | C            | 150                 | 6.3                     | 85                           | 4                          | 125                             | 9.5                 | 6               | 1.3                         | 1               | 291                     | 262  | 116   |  |
| TAJD157*006#NJ  | D            | 150                 | 6.3                     | 85                           | 4                          | 125                             | 9.5                 | 6               | 0.9                         | 1               | 408                     | 367  | 163   |  |
| TAJC227*006#NJ  | C            | 220                 | 6.3                     | 85                           | 4                          | 125                             | 13.9                | 8               | 1.2                         | 1               | 303                     | 272  | 121   |  |
| TAJD227*006#NJ  | D            | 220                 | 6.3                     | 85                           | 4                          | 125                             | 13.9                | 8               | 0.4                         | 1               | 612                     | 551  | 245   |  |
| TAJE227*006#NJ  | E            | 220                 | 6.3                     | 85                           | 4                          | 125                             | 13.9                | 8               | 0.4                         | 1 <sup>1)</sup> | 642                     | 578  | 257   |  |
| TAJC337*006#NJ  | C            | 330                 | 6.3                     | 85                           | 4                          | 125                             | 19.8                | 12              | 0.5                         | 1               | 469                     | 422  | 188   |  |
| TAJD337*006#NJ  | D            | 330                 | 6.3                     | 85                           | 4                          | 125                             | 20.8                | 8               | 0.4                         | 1               | 612                     | 551  | 245   |  |
| TAJE337*006#NJ  | E            | 330                 | 6.3                     | 85                           | 4                          | 125                             | 20.8                | 8               | 0.4                         | 1 <sup>1)</sup> | 642                     | 578  | 257   |  |
| TAJD477*006#NJ  | D            | 470                 | 6.3                     | 85                           | 4                          | 125                             | 28                  | 12              | 0.4                         | 1               | 612                     | 551  | 245   |  |
| TAJE477*006#NJ  | E            | 470                 | 6.3                     | 85                           | 4                          | 125                             | 28                  | 10              | 0.4                         | 1 <sup>1)</sup> | 642                     | 578  | 257   |  |
| TAJV477*006#NJ  | V            | 470                 | 6.3                     | 85                           | 4                          | 125                             | 28                  | 10              | 0.4                         | 1 <sup>1)</sup> | 791                     | 712  | 316   |  |
| TAJE687*006#NJ  | E            | 680                 | 6.3                     | 85                           | 4                          | 125                             | 42.8                | 10              | 0.5                         | 1 <sup>1)</sup> | 574                     | 517  | 230   |  |
| TAJV687*006#NJ  | V            | 680                 | 6.3                     | 85                           | 4                          | 125                             | 42.8                | 10              | 0.5                         | 1 <sup>1)</sup> | 707                     | 636  | 283   |  |

## RATINGS &amp; PART NUMBER REFERENCE

| AVX<br>Part No. | Case<br>Size | Capacitance<br>(μF) | Rated<br>Voltage<br>(V) | Rated<br>Temperature<br>(°C) | Category<br>Voltage<br>(V) | Category<br>Temperature<br>(°C) | DCL<br>(μA)<br>Max. | DF<br>%<br>Max. | ESR<br>Max. (Ω)<br>@ 100kHz | MSL             | 100kHz RMS Current (mA) |      |       |
|-----------------|--------------|---------------------|-------------------------|------------------------------|----------------------------|---------------------------------|---------------------|-----------------|-----------------------------|-----------------|-------------------------|------|-------|
|                 |              |                     |                         |                              |                            |                                 |                     |                 |                             |                 | 25°C                    | 85°C | 125°C |
| TAJE108M006#NJ  | E            | 1000                | 6.3                     | 85                           | 4                          | 125                             | 60                  | 20              | 0.2                         | 1 <sup>1)</sup> | 908                     | 817  | 363   |
| TAJV108M006#NJ  | V            | 1000                | 6.3                     | 85                           | 4                          | 125                             | 60                  | 16              | 0.2                         | 1 <sup>1)</sup> | 1118                    | 1006 | 447   |
| 10 Volt @ 85°C  |              |                     |                         |                              |                            |                                 |                     |                 |                             |                 |                         |      |       |
| TAJA475*010#NJ  | A            | 4.7                 | 10                      | 85                           | 7                          | 125                             | 0.5                 | 6               | 5                           | 1               | 122                     | 110  | 49    |
| TAJA685*010#NJ  | A            | 6.8                 | 10                      | 85                           | 7                          | 125                             | 0.7                 | 6               | 4                           | 1               | 137                     | 123  | 55    |
| TAJA106*010#NJ  | A            | 10                  | 10                      | 85                           | 7                          | 125                             | 1                   | 6               | 3                           | 1               | 158                     | 142  | 63    |
| TAJA156*010#NJ  | A            | 15                  | 10                      | 85                           | 7                          | 125                             | 1.5                 | 6               | 3.2                         | 1               | 153                     | 138  | 61    |
| TAJB156*010#NJ  | B            | 15                  | 10                      | 85                           | 7                          | 125                             | 1.5                 | 6               | 2.8                         | 1               | 174                     | 157  | 70    |
| TAJA226*010#NJ  | A            | 22                  | 10                      | 85                           | 7                          | 125                             | 2.2                 | 8               | 3                           | 1               | 158                     | 142  | 63    |
| TAJB226*010#NJ  | B            | 22                  | 10                      | 85                           | 7                          | 125                             | 2.2                 | 6               | 2.4                         | 1               | 188                     | 169  | 75    |
| TAJA336*010#NJ  | A            | 33                  | 10                      | 85                           | 7                          | 125                             | 3.3                 | 8               | 1.7                         | 1               | 210                     | 189  | 84    |
| TAJB336*010#NJ  | B            | 33                  | 10                      | 85                           | 7                          | 125                             | 3.3                 | 6               | 1.8                         | 1               | 217                     | 196  | 87    |
| TAJC336*010#NJ  | C            | 33                  | 10                      | 85                           | 7                          | 125                             | 3.3                 | 6               | 1.6                         | 1               | 262                     | 236  | 105   |
| TAJB476*010#NJ  | B            | 47                  | 10                      | 85                           | 7                          | 125                             | 4.7                 | 8               | 1                           | 1               | 292                     | 262  | 117   |
| TAJC476*010#NJ  | C            | 47                  | 10                      | 85                           | 7                          | 125                             | 4.7                 | 6               | 1.2                         | 1               | 303                     | 272  | 121   |
| TAJB686*010#NJ  | B            | 68                  | 10                      | 85                           | 7                          | 125                             | 6.8                 | 6               | 1.4                         | 1               | 246                     | 222  | 99    |
| TAJC686*010#NJ  | C            | 68                  | 10                      | 85                           | 7                          | 125                             | 6.8                 | 6               | 1.3                         | 1               | 291                     | 262  | 116   |
| TAJB107M010#NJ  | B            | 100                 | 10                      | 85                           | 7                          | 125                             | 10                  | 8               | 1.4                         | 1               | 246                     | 222  | 99    |
| TAJC107*010#NJ  | C            | 100                 | 10                      | 85                           | 7                          | 125                             | 10                  | 8               | 1.2                         | 1               | 303                     | 272  | 121   |
| TAJD107*010#NJ  | D            | 100                 | 10                      | 85                           | 7                          | 125                             | 10                  | 6               | 0.9                         | 1               | 408                     | 367  | 163   |
| TAJC157*010#NJ  | C            | 150                 | 10                      | 85                           | 7                          | 125                             | 15                  | 8               | 0.9                         | 1               | 350                     | 315  | 140   |
| TAJD157*010#NJ  | D            | 150                 | 10                      | 85                           | 7                          | 125                             | 15                  | 8               | 0.9                         | 1               | 408                     | 367  | 163   |
| TAJE157*010#NJ  | E            | 150                 | 10                      | 85                           | 7                          | 125                             | 15                  | 8               | 0.9                         | 1 <sup>1)</sup> | 428                     | 385  | 171   |
| TAJC227*010#NJ  | C            | 220                 | 10                      | 85                           | 7                          | 125                             | 22                  | 16              | 0.5                         | 1               | 469                     | 422  | 188   |
| TAJD227*010#NJ  | D            | 220                 | 10                      | 85                           | 7                          | 125                             | 22                  | 8               | 0.5                         | 1               | 548                     | 493  | 219   |
| TAJE227*010#NJ  | E            | 220                 | 10                      | 85                           | 7                          | 125                             | 22                  | 8               | 0.5                         | 1 <sup>1)</sup> | 574                     | 517  | 230   |
| TAJD337*010#NJ  | D            | 330                 | 10                      | 85                           | 7                          | 125                             | 33                  | 8               | 0.9                         | 1               | 408                     | 367  | 163   |
| TAJE337*010#NJ  | E            | 330                 | 10                      | 85                           | 7                          | 125                             | 33                  | 8               | 0.9                         | 1 <sup>1)</sup> | 428                     | 385  | 171   |
| TAJV337*010#NJ  | V            | 330                 | 10                      | 85                           | 7                          | 125                             | 33                  | 10              | 0.9                         | 1 <sup>1)</sup> | 572                     | 474  | 211   |
| TAJE477*010#NJ  | E            | 470                 | 10                      | 85                           | 7                          | 125                             | 47                  | 10              | 0.5                         | 1 <sup>1)</sup> | 574                     | 517  | 230   |
| TAJU477*010RNJ  | U            | 470                 | 10                      | 85                           | 7                          | 125                             | 47                  | 12              | 0.5                         | 1 <sup>1)</sup> | 574                     | 517  | 230   |
| TAJV477*010#NJ  | V            | 470                 | 10                      | 85                           | 7                          | 125                             | 47                  | 10              | 0.5                         | 1 <sup>1)</sup> | 707                     | 636  | 283   |
| 16 Volt @ 85°C  |              |                     |                         |                              |                            |                                 |                     |                 |                             |                 |                         |      |       |
| TAJA225*016#NJ  | A            | 2.2                 | 16                      | 85                           | 10                         | 125                             | 0.5                 | 6               | 6.5                         | 1               | 107                     | 97   | 43    |
| TAJA335*016#NJ  | A            | 3.3                 | 16                      | 85                           | 10                         | 125                             | 0.5                 | 6               | 5                           | 1               | 122                     | 110  | 49    |
| TAJB335*016#NJ  | B            | 3.3                 | 16                      | 85                           | 10                         | 125                             | 0.5                 | 6               | 4.5                         | 1               | 137                     | 124  | 55    |
| TAJA475*016#NJ  | A            | 4.7                 | 16                      | 85                           | 10                         | 125                             | 0.8                 | 6               | 4                           | 1               | 137                     | 123  | 55    |
| TAJB475*016#NJ  | B            | 4.7                 | 16                      | 85                           | 10                         | 125                             | 0.8                 | 6               | 3.5                         | 1               | 156                     | 140  | 62    |
| TAJA685*016#NJ  | A            | 6.8                 | 16                      | 85                           | 10                         | 125                             | 1.1                 | 6               | 3.5                         | 1               | 146                     | 132  | 59    |
| TAJB685*016#NJ  | B            | 6.8                 | 16                      | 85                           | 10                         | 125                             | 1.1                 | 6               | 2.5                         | 1               | 184                     | 166  | 74    |
| TAJA106*016#NJ  | A            | 10                  | 16                      | 85                           | 10                         | 125                             | 1.6                 | 6               | 3                           | 1               | 158                     | 142  | 63    |
| TAJB106*016#NJ  | B            | 10                  | 16                      | 85                           | 10                         | 125                             | 1.6                 | 6               | 2.8                         | 1               | 174                     | 157  | 70    |
| TAJC106*016#NJ  | C            | 10                  | 16                      | 85                           | 10                         | 125                             | 1.6                 | 6               | 2                           | 1               | 235                     | 211  | 94    |
| TAJA156M016#NJ  | A            | 15                  | 16                      | 85                           | 10                         | 125                             | 2.4                 | 6               | 2                           | 1               | 194                     | 174  | 77    |
| TAJB156*016#NJ  | B            | 15                  | 16                      | 85                           | 10                         | 125                             | 2.4                 | 6               | 2.5                         | 1               | 184                     | 166  | 74    |
| TAJC156*016#NJ  | C            | 15                  | 16                      | 85                           | 10                         | 125                             | 2.4                 | 6               | 1.8                         | 1               | 247                     | 222  | 99    |
| TAJB226*016#NJ  | B            | 22                  | 16                      | 85                           | 10                         | 125                             | 3.5                 | 6               | 2.3                         | 1               | 192                     | 173  | 77    |
| TAJC226*016#NJ  | C            | 22                  | 16                      | 85                           | 10                         | 125                             | 3.5                 | 6               | 1                           | 1               | 332                     | 298  | 133   |
| TAJD226*016#NJ  | D            | 22                  | 16                      | 85                           | 10                         | 125                             | 3.5                 | 6               | 1.1                         | 1               | 369                     | 332  | 148   |
| TAJB336*016#NJ  | B            | 33                  | 16                      | 85                           | 10                         | 125                             | 5.3                 | 8               | 2.1                         | 1               | 201                     | 181  | 80    |
| TAJC336*016#NJ  | C            | 33                  | 16                      | 85                           | 10                         | 125                             | 5.3                 | 6               | 1.5                         | 1               | 271                     | 244  | 108   |
| TAJD336*016#NJ  | D            | 33                  | 16                      | 85                           | 10                         | 125                             | 5.3                 | 6               | 0.9                         | 1               | 408                     | 367  | 163   |
| TAJC476*016#NJ  | C            | 47                  | 16                      | 85                           | 10                         | 125                             | 7.5                 | 6               | 0.5                         | 1               | 469                     | 422  | 188   |
| TAJD476*016#NJ  | D            | 47                  | 16                      | 85                           | 10                         | 125                             | 7.5                 | 6               | 0.9                         | 1               | 408                     | 367  | 163   |
| TAJC686*016#NJ  | C            | 68                  | 16                      | 85                           | 10                         | 125                             | 10.9                | 6               | 1.3                         | 1               | 291                     | 262  | 116   |
| TAJD686*016#NJ  | D            | 68                  | 16                      | 85                           | 10                         | 125                             | 10.9                | 6               | 0.9                         | 1               | 408                     | 367  | 163   |
| TAJC107*016#NJ  | C            | 100                 | 16                      | 85                           | 10                         | 125                             | 16                  | 8               | 1                           | 1               | 332                     | 298  | 133   |
| TAJD107*016#NJ  | D            | 100                 | 16                      | 85                           | 10                         | 125                             | 16                  | 6               | 0.6                         | 1               | 500                     | 450  | 200   |
| TAJE107*016#NJ  | E            | 100                 | 16                      | 85                           | 10                         | 125                             | 16                  | 6               | 0.9                         | 1 <sup>1)</sup> | 428                     | 385  | 171   |
| TAJD157*016#NJ  | D            | 150                 | 16                      | 85                           | 10                         | 125                             | 24                  | 6               | 0.9                         | 1               | 408                     | 367  | 163   |
| TAJE157*016#NJ  | E            | 150                 | 16                      | 85                           | 10                         | 125                             | 23                  | 8               | 0.3                         | 1 <sup>1)</sup> | 742                     | 667  | 297   |
| TAJV157*016#NJ  | V            | 150                 | 16                      | 85                           | 10                         | 125                             | 24                  | 8               | 0.5                         | 1 <sup>1)</sup> | 707                     | 636  | 283   |
| TAJE227*016#NJ  | E            | 220                 | 16                      | 85                           | 10                         | 125                             | 35.2                | 10              | 0.5                         | 1 <sup>1)</sup> | 574                     | 517  | 230   |
| TAJV227*016#NJ  | V            | 220                 | 16                      | 85                           | 10                         | 125                             | 35.2                | 8               | 0.9                         | 1 <sup>1)</sup> | 527                     | 474  | 211   |
| TAJE337M016#NJ  | E            | 330                 | 16                      | 85                           | 10                         | 125                             | 52.8                | 30              | 0.4                         | 1 <sup>1)</sup> | 642                     | 578  | 257   |
| 20 Volt @ 85°C  |              |                     |                         |                              |                            |                                 |                     |                 |                             |                 |                         |      |       |
| TAJA105*020#NJ  | A            | 1                   | 20                      | 85                           | 13                         | 125                             | 0.5                 | 4               | 9                           | 1               | 91                      | 82   | 37    |
| TAJA155*020#NJ  | A            | 1.5                 | 20                      | 85                           | 13                         | 125                             | 0.5                 | 6               | 6.5                         | 1               | 107                     | 97   | 43    |
| TAJA225*020#NJ  | A            | 2.2                 | 20                      | 85                           | 13                         | 125                             | 0.5                 | 6               | 5.3                         | 1               | 119                     | 107  | 48    |
| TAJB225*020#NJ  | B            | 2.2                 | 20                      | 85                           | 13                         | 125                             | 0.5                 | 6               | 3.5                         | 1               | 156                     | 140  | 62    |
| TAJA335*020#NJ  | A            | 3.3                 | 20                      | 85                           | 13                         | 125                             | 0.7                 | 6               | 4.5                         | 1               | 129                     | 116  | 52    |

### RATINGS & PART NUMBER REFERENCE

| AVX Part No.   | Case Size | Capacitance (µF) | Rated Voltage (V) | Rated Temperature (°C) | Category Voltage (V) | Category Temperature (°C) | DCL (µA) Max. | DF % Max. | ESR Max. (Ω) @ 100kHz | MSL             | 100kHz RMS Current (mA) |      |       |
|----------------|-----------|------------------|-------------------|------------------------|----------------------|---------------------------|---------------|-----------|-----------------------|-----------------|-------------------------|------|-------|
|                |           |                  |                   |                        |                      |                           |               |           |                       |                 | 25°C                    | 85°C | 125°C |
| TAJB335*020#NJ | B         | 3.3              | 20                | 85                     | 13                   | 125                       | 0.7           | 6         | 3                     | 1               | 168                     | 151  | 67    |
| TAJA475*020#NJ | A         | 4.7              | 20                | 85                     | 13                   | 125                       | 0.9           | 6         | 4                     | 1               | 137                     | 123  | 55    |
| TAJB475*020#NJ | B         | 4.7              | 20                | 85                     | 13                   | 125                       | 0.9           | 6         | 3                     | 1               | 168                     | 151  | 67    |
| TAJA685*020#NJ | A         | 6.8              | 20                | 85                     | 13                   | 125                       | 1.4           | 6         | 2.4                   | 1               | 177                     | 159  | 71    |
| TAJB685*020#NJ | B         | 6.8              | 20                | 85                     | 13                   | 125                       | 1.4           | 6         | 2.5                   | 1               | 184                     | 166  | 74    |
| TAJC685*020#NJ | C         | 6.8              | 20                | 85                     | 13                   | 125                       | 1.4           | 6         | 2                     | 1               | 235                     | 211  | 94    |
| TAJB106*020#NJ | B         | 10               | 20                | 85                     | 13                   | 125                       | 2             | 6         | 2.1                   | 1               | 201                     | 181  | 80    |
| TAJC106*020#NJ | C         | 10               | 20                | 85                     | 13                   | 125                       | 2             | 6         | 1.2                   | 1               | 303                     | 272  | 121   |
| TAJB156*020#NJ | B         | 15               | 20                | 85                     | 13                   | 125                       | 3             | 6         | 2                     | 1               | 206                     | 186  | 82    |
| TAJC156*020#NJ | C         | 15               | 20                | 85                     | 13                   | 125                       | 3             | 6         | 1.7                   | 1               | 254                     | 229  | 102   |
| TAJB226*020#NJ | B         | 22               | 20                | 85                     | 13                   | 125                       | 4.4           | 6         | 1.8                   | 1               | 217                     | 196  | 87    |
| TAJC226*020#NJ | C         | 22               | 20                | 85                     | 13                   | 125                       | 4.4           | 6         | 1.6                   | 1               | 262                     | 236  | 105   |
| TAJD226*020#NJ | D         | 22               | 20                | 85                     | 13                   | 125                       | 4.4           | 6         | 0.9                   | 1               | 408                     | 367  | 163   |
| TAJC336*020#NJ | C         | 33               | 20                | 85                     | 13                   | 125                       | 6.6           | 6         | 1.5                   | 1               | 271                     | 244  | 108   |
| TAJD336*020#NJ | D         | 33               | 20                | 85                     | 13                   | 125                       | 6.6           | 6         | 0.9                   | 1               | 408                     | 367  | 163   |
| TAJC476*020#NJ | C         | 47               | 20                | 85                     | 13                   | 125                       | 9.4           | 6         | 0.5                   | 1               | 469                     | 422  | 188   |
| TAJD476*020#NJ | D         | 47               | 20                | 85                     | 13                   | 125                       | 9.4           | 6         | 0.9                   | 1               | 408                     | 367  | 163   |
| TAJE476*020#NJ | E         | 47               | 20                | 85                     | 13                   | 125                       | 9.4           | 6         | 0.9                   | 1 <sup>1)</sup> | 428                     | 385  | 171   |
| TAJC686M020#NJ | C         | 68               | 20                | 85                     | 13                   | 125                       | 13.6          | 8         | 0.5                   | 1               | 469                     | 422  | 188   |
| TAJD686*020#NJ | D         | 68               | 20                | 85                     | 13                   | 125                       | 13.6          | 6         | 0.4                   | 1               | 612                     | 551  | 245   |
| TAJE686*020#NJ | E         | 68               | 20                | 85                     | 13                   | 125                       | 13.6          | 6         | 0.9                   | 1 <sup>1)</sup> | 428                     | 385  | 171   |
| TAJD107*020#NJ | D         | 100              | 20                | 85                     | 13                   | 125                       | 20            | 6         | 0.5                   | 1               | 548                     | 493  | 219   |
| TAJE107*020#NJ | E         | 100              | 20                | 85                     | 13                   | 125                       | 20            | 6         | 0.4                   | 1 <sup>1)</sup> | 642                     | 578  | 257   |
| TAJV107*020#NJ | V         | 100              | 20                | 85                     | 13                   | 125                       | 20            | 8         | 0.9                   | 1 <sup>1)</sup> | 527                     | 474  | 211   |
| TAJE157*020#NJ | E         | 150              | 20                | 85                     | 13                   | 125                       | 30            | 8         | 0.3                   | 1 <sup>1)</sup> | 742                     | 667  | 297   |
| TAJV157*020#NJ | V         | 150              | 20                | 85                     | 13                   | 125                       | 30            | 8         | 0.3                   | 1 <sup>1)</sup> | 913                     | 822  | 365   |
| 25 Volt @ 85°C |           |                  |                   |                        |                      |                           |               |           |                       |                 |                         |      |       |
| TAJA474*025#NJ | A         | 0.47             | 25                | 85                     | 17                   | 125                       | 0.5           | 4         | 14                    | 1               | 73                      | 66   | 29    |
| TAJA684*025#NJ | A         | 0.68             | 25                | 85                     | 17                   | 125                       | 0.5           | 4         | 10                    | 1               | 87                      | 78   | 35    |
| TAJA105*025#NJ | A         | 1                | 25                | 85                     | 17                   | 125                       | 0.5           | 4         | 8                     | 1               | 97                      | 87   | 39    |
| TAJA155*025#NJ | A         | 1.5              | 25                | 85                     | 17                   | 125                       | 0.5           | 6         | 7.5                   | 1               | 100                     | 90   | 40    |
| TAJB155*025#NJ | B         | 1.5              | 25                | 85                     | 17                   | 125                       | 0.5           | 6         | 5                     | 1               | 130                     | 117  | 52    |
| TAJA225*025#NJ | A         | 2.2              | 25                | 85                     | 17                   | 125                       | 0.6           | 6         | 7                     | 1               | 104                     | 93   | 41    |
| TAJB225*025#NJ | B         | 2.2              | 25                | 85                     | 17                   | 125                       | 0.6           | 6         | 4.5                   | 1               | 137                     | 124  | 55    |
| TAJA335*025#NJ | A         | 3.3              | 25                | 85                     | 17                   | 125                       | 0.8           | 6         | 3.7                   | 1               | 142                     | 128  | 57    |
| TAJB335*025#NJ | B         | 3.3              | 25                | 85                     | 17                   | 125                       | 0.8           | 6         | 3.5                   | 1               | 156                     | 140  | 62    |
| TAJA475*025#NJ | A         | 4.7              | 25                | 85                     | 17                   | 125                       | 1.2           | 6         | 3.1                   | 1               | 156                     | 140  | 62    |
| TAJB475*025#NJ | B         | 4.7              | 25                | 85                     | 17                   | 125                       | 1.2           | 6         | 1.5                   | 1               | 238                     | 214  | 95    |
| TAJB685*025#NJ | B         | 6.8              | 25                | 85                     | 17                   | 125                       | 1.7           | 6         | 2.8                   | 1               | 174                     | 157  | 70    |
| TAJC685*025#NJ | C         | 6.8              | 25                | 85                     | 17                   | 125                       | 1.7           | 6         | 2                     | 1               | 235                     | 211  | 94    |
| TAJB106*025#NJ | B         | 10               | 25                | 85                     | 17                   | 125                       | 2.5           | 6         | 2.5                   | 1               | 184                     | 166  | 74    |
| TAJC106*025#NJ | C         | 10               | 25                | 85                     | 17                   | 125                       | 2.5           | 6         | 1.8                   | 1               | 247                     | 222  | 99    |
| TAJD106*025#NJ | D         | 10               | 25                | 85                     | 17                   | 125                       | 2.5           | 6         | 1.2                   | 1               | 354                     | 318  | 141   |
| TAJC156*025#NJ | C         | 15               | 25                | 85                     | 17                   | 125                       | 3.8           | 6         | 1.6                   | 1               | 262                     | 236  | 105   |
| TAJD156*025#NJ | D         | 15               | 25                | 85                     | 17                   | 125                       | 3.8           | 6         | 1                     | 1               | 387                     | 349  | 155   |
| TAJC226*025#NJ | C         | 22               | 25                | 85                     | 17                   | 125                       | 5.5           | 6         | 1.4                   | 1               | 280                     | 252  | 112   |
| TAJD226*025#NJ | D         | 22               | 25                | 85                     | 17                   | 125                       | 5.5           | 6         | 0.9                   | 1               | 408                     | 367  | 163   |
| TAJC336*025#NJ | C         | 33               | 25                | 85                     | 17                   | 125                       | 8.3           | 6         | 0.9                   | 1               | 350                     | 315  | 140   |
| TAJD336*025#NJ | D         | 33               | 25                | 85                     | 17                   | 125                       | 8.3           | 6         | 0.9                   | 1               | 408                     | 367  | 163   |
| TAJE336*025#NJ | E         | 33               | 25                | 85                     | 17                   | 125                       | 8.3           | 6         | 0.9                   | 1 <sup>1)</sup> | 428                     | 385  | 171   |
| TAJD476*025#NJ | D         | 47               | 25                | 85                     | 17                   | 125                       | 11.8          | 6         | 0.9                   | 1               | 408                     | 367  | 163   |
| TAJE476*025#NJ | E         | 47               | 25                | 85                     | 17                   | 125                       | 11.8          | 6         | 0.9                   | 1 <sup>1)</sup> | 428                     | 385  | 171   |
| TAJD686*025#NJ | D         | 68               | 25                | 85                     | 17                   | 125                       | 17            | 6         | 0.9                   | 1               | 408                     | 367  | 163   |
| TAJE686*025#NJ | E         | 68               | 25                | 85                     | 17                   | 125                       | 17            | 6         | 0.9                   | 1 <sup>1)</sup> | 428                     | 385  | 171   |
| TAJV686*025#NJ | V         | 68               | 25                | 85                     | 17                   | 125                       | 17            | 6         | 0.9                   | 1 <sup>1)</sup> | 527                     | 474  | 211   |
| TAJE107M025#NJ | E         | 100              | 25                | 85                     | 17                   | 125                       | 25            | 10        | 0.3                   | 1 <sup>1)</sup> | 742                     | 667  | 297   |
| TAJV107*025#NJ | V         | 100              | 25                | 85                     | 17                   | 125                       | 25            | 8         | 0.4                   | 1 <sup>1)</sup> | 791                     | 712  | 316   |
| TAJV157M025#NJ | V         | 150              | 25                | 85                     | 17                   | 125                       | 37.5          | 10        | 0.4                   | 1 <sup>1)</sup> | 791                     | 712  | 316   |
| 35 Volt @ 85°C |           |                  |                   |                        |                      |                           |               |           |                       |                 |                         |      |       |
| TAJA104*035#NJ | A         | 0.1              | 35                | 85                     | 23                   | 125                       | 0.5           | 4         | 24                    | 1               | 56                      | 50   | 22    |
| TAJA154*035#NJ | A         | 0.15             | 35                | 85                     | 23                   | 125                       | 0.5           | 4         | 21                    | 1               | 60                      | 54   | 24    |
| TAJA224*035#NJ | A         | 0.22             | 35                | 85                     | 23                   | 125                       | 0.5           | 4         | 18                    | 1               | 65                      | 58   | 26    |
| TAJA334*035#NJ | A         | 0.33             | 35                | 85                     | 23                   | 125                       | 0.5           | 4         | 15                    | 1               | 71                      | 64   | 28    |
| TAJA474*035#NJ | A         | 0.47             | 35                | 85                     | 23                   | 125                       | 0.5           | 4         | 12                    | 1               | 79                      | 71   | 32    |
| TAJB474*035#NJ | B         | 0.47             | 35                | 85                     | 23                   | 125                       | 0.5           | 4         | 10                    | 1               | 92                      | 83   | 37    |
| TAJA684*035#NJ | A         | 0.68             | 35                | 85                     | 23                   | 125                       | 0.5           | 4         | 8                     | 1               | 97                      | 87   | 39    |
| TAJB684*035#NJ | B         | 0.68             | 35                | 85                     | 23                   | 125                       | 0.5           | 4         | 8                     | 1               | 103                     | 93   | 41    |
| TAJA105*035#NJ | A         | 1                | 35                | 85                     | 23                   | 125                       | 0.5           | 4         | 7.5                   | 1               | 100                     | 90   | 40    |
| TAJB105*035#NJ | B         | 1                | 35                | 85                     | 23                   | 125                       | 0.5           | 4         | 6.5                   | 1               | 114                     | 103  | 46    |
| TAJA155*035#NJ | A         | 1.5              | 35                | 85                     | 23                   | 125                       | 0.5           | 6         | 7.5                   | 1               | 100                     | 90   | 40    |
| TAJB155*035#NJ | B         | 1.5              | 35                | 85                     | 23                   | 125                       | 0.5           | 6         | 5.2                   | 1               | 128                     | 115  | 51    |
| TAJC155*035#NJ | C         | 1.5              | 35                | 85                     | 23                   | 125                       | 0.5           | 6         | 4.5                   | 1               | 156                     | 141  | 63    |

## RATINGS &amp; PART NUMBER REFERENCE

| AVX Part No.   | Case Size | Capacitance (μF) | Rated Voltage (V) | Rated Temperature (°C) | Category Voltage (V) | Category Temperature (°C) | DCL (μA) Max. | DF % Max. | ESR Max. (Ω) @ 100kHz | MSL             | 100kHz RMS Current (mA) |      |       |
|----------------|-----------|------------------|-------------------|------------------------|----------------------|---------------------------|---------------|-----------|-----------------------|-----------------|-------------------------|------|-------|
|                |           |                  |                   |                        |                      |                           |               |           |                       |                 | 25°C                    | 85°C | 125°C |
| TAJA225*035#NJ | A         | 2.2              | 35                | 85                     | 23                   | 125                       | 0.8           | 6         | 4.5                   | 1               | 129                     | 116  | 52    |
| TAJB225*035#NJ | B         | 2.2              | 35                | 85                     | 23                   | 125                       | 0.8           | 6         | 4.2                   | 1               | 142                     | 128  | 57    |
| TAJC225*035#NJ | C         | 2.2              | 35                | 85                     | 23                   | 125                       | 0.8           | 6         | 3.5                   | 1               | 177                     | 160  | 71    |
| TAJB335*035#NJ | B         | 3.3              | 35                | 85                     | 23                   | 125                       | 1.2           | 6         | 3.5                   | 1               | 156                     | 140  | 62    |
| TAJC335*035#NJ | C         | 3.3              | 35                | 85                     | 23                   | 125                       | 1.2           | 6         | 2.5                   | 1               | 210                     | 189  | 84    |
| TAJB475*035#NJ | B         | 4.7              | 35                | 85                     | 23                   | 125                       | 1.6           | 6         | 3.1                   | 1               | 166                     | 149  | 66    |
| TAJC475*035#NJ | C         | 4.7              | 35                | 85                     | 23                   | 125                       | 1.6           | 6         | 2.2                   | 1               | 224                     | 201  | 89    |
| TAJD475*035#NJ | D         | 4.7              | 35                | 85                     | 23                   | 125                       | 1.6           | 6         | 1.5                   | 1               | 316                     | 285  | 126   |
| TAJC685*035#NJ | C         | 6.8              | 35                | 85                     | 23                   | 125                       | 2.4           | 6         | 1.8                   | 1               | 247                     | 222  | 99    |
| TAJD685*035#NJ | D         | 6.8              | 35                | 85                     | 23                   | 125                       | 2.4           | 6         | 1.3                   | 1               | 340                     | 306  | 136   |
| TAJC106*035#NJ | C         | 10               | 35                | 85                     | 23                   | 125                       | 3.5           | 6         | 1.6                   | 1               | 262                     | 236  | 105   |
| TAJD106*035#NJ | D         | 10               | 35                | 85                     | 23                   | 125                       | 3.5           | 6         | 1                     | 1               | 387                     | 349  | 155   |
| TAJE106*035#NJ | E         | 10               | 35                | 85                     | 23                   | 125                       | 3.5           | 6         | 0.9                   | 1 <sup>1)</sup> | 428                     | 385  | 171   |
| TAJC156*035#NJ | C         | 15               | 35                | 85                     | 23                   | 125                       | 5.3           | 6         | 1.4                   | 1               | 280                     | 252  | 112   |
| TAJD156*035#NJ | D         | 15               | 35                | 85                     | 23                   | 125                       | 5.3           | 6         | 0.9                   | 1               | 408                     | 367  | 163   |
| TAJD226*035#NJ | D         | 22               | 35                | 85                     | 23                   | 125                       | 7.7           | 6         | 0.9                   | 1               | 408                     | 367  | 163   |
| TAJE226*035#NJ | E         | 22               | 35                | 85                     | 23                   | 125                       | 7.7           | 6         | 0.5                   | 1 <sup>1)</sup> | 574                     | 517  | 230   |
| TAJD336*035#NJ | D         | 33               | 35                | 85                     | 23                   | 125                       | 11.6          | 6         | 0.9                   | 1               | 408                     | 367  | 163   |
| TAJE336*035#NJ | E         | 33               | 35                | 85                     | 23                   | 125                       | 11.6          | 6         | 0.9                   | 1 <sup>1)</sup> | 428                     | 385  | 171   |
| TAJV336*035#NJ | V         | 33               | 35                | 85                     | 23                   | 125                       | 11.6          | 6         | 0.5                   | 1 <sup>1)</sup> | 707                     | 636  | 283   |
| TAJE476*035#NJ | E         | 47               | 35                | 85                     | 23                   | 125                       | 16.5          | 6         | 0.9                   | 1 <sup>1)</sup> | 428                     | 385  | 171   |
| TAJV476*035#NJ | V         | 47               | 35                | 85                     | 23                   | 125                       | 16.5          | 6         | 0.4                   | 1 <sup>1)</sup> | 791                     | 712  | 316   |
| TAJV686*035#NJ | V         | 68               | 35                | 85                     | 23                   | 125                       | 23.8          | 6         | 0.5                   | 1 <sup>1)</sup> | 707                     | 363  | 283   |
| 50 Volt @ 85°C |           |                  |                   |                        |                      |                           |               |           |                       |                 |                         |      |       |
| TAJA104*050#NJ | A         | 0.1              | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 22                    | 1               | 58                      | 53   | 23    |
| TAJA154*050#NJ | A         | 0.15             | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 15                    | 1               | 71                      | 64   | 28    |
| TAJB154*050#NJ | B         | 0.15             | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 17                    | 1               | 71                      | 64   | 28    |
| TAJA224*050#NJ | A         | 0.22             | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 18                    | 1               | 65                      | 58   | 26    |
| TAJB224*050#NJ | B         | 0.22             | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 14                    | 1               | 78                      | 70   | 31    |
| TAJA334*050#NJ | A         | 0.33             | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 17                    | 1               | 66                      | 60   | 27    |
| TAJB334*050#NJ | B         | 0.33             | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 12                    | 1               | 84                      | 76   | 34    |
| TAJA474*050#NJ | A         | 0.47             | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 9.5                   | 1               | 89                      | 80   | 36    |
| TAJB474*050#NJ | B         | 0.47             | 50                | 85                     | 33                   | 125                       | 0.7           | 4         | 9.5                   | 1               | 95                      | 85   | 38    |
| TAJC474*050#NJ | C         | 0.47             | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 8                     | 1               | 117                     | 106  | 47    |
| TAJA684*050#NJ | A         | 0.68             | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 7.9                   | 1               | 97                      | 88   | 39    |
| TAJB684*050#NJ | B         | 0.68             | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 8                     | 1               | 103                     | 93   | 41    |
| TAJC684*050#NJ | C         | 0.68             | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 7                     | 1               | 125                     | 113  | 50    |
| TAJA105*050#NJ | A         | 1                | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 6.6                   | 1               | 107                     | 96   | 43    |
| TAJB105*050#NJ | B         | 1                | 50                | 85                     | 33                   | 125                       | 0.5           | 6         | 7                     | 1               | 110                     | 99   | 44    |
| TAJC105*050#NJ | C         | 1                | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 5.5                   | 1               | 141                     | 127  | 57    |
| TAJB155*050#NJ | B         | 1.5              | 50                | 85                     | 33                   | 125                       | 0.8           | 8         | 5.4                   | 1               | 125                     | 113  | 50    |
| TAJC155*050#NJ | C         | 1.5              | 50                | 85                     | 33                   | 125                       | 0.8           | 6         | 4.5                   | 1               | 156                     | 141  | 63    |
| TAJD155*050#NJ | D         | 1.5              | 50                | 85                     | 33                   | 125                       | 0.8           | 6         | 4                     | 1               | 194                     | 174  | 77    |
| TAJB225*050#NJ | B         | 2.2              | 50                | 85                     | 33                   | 125                       | 1.1           | 8         | 4.5                   | 1               | 137                     | 124  | 55    |
| TAJC225*050#NJ | C         | 2.2              | 50                | 85                     | 33                   | 125                       | 1.1           | 8         | 2.5                   | 1               | 210                     | 189  | 84    |
| TAJD225*050#NJ | D         | 2.2              | 50                | 85                     | 33                   | 125                       | 1.1           | 6         | 2.5                   | 1               | 245                     | 220  | 98    |
| TAJC335*050#NJ | C         | 3.3              | 50                | 85                     | 33                   | 125                       | 1.6           | 6         | 2.5                   | 1               | 210                     | 189  | 84    |
| TAJD335*050#NJ | D         | 3.3              | 50                | 85                     | 33                   | 125                       | 1.7           | 6         | 2                     | 1               | 274                     | 246  | 110   |
| TAJC475*050#NJ | C         | 4.7              | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 1.4                   | 1               | 280                     | 252  | 112   |
| TAJD475*050#NJ | D         | 4.7              | 50                | 85                     | 33                   | 125                       | 2.4           | 6         | 1.4                   | 1               | 327                     | 295  | 131   |
| TAJC685*050#NJ | C         | 6.8              | 50                | 85                     | 33                   | 125                       | 3.4           | 6         | 1                     | 1               | 332                     | 298  | 133   |
| TAJD685*050#NJ | D         | 6.8              | 50                | 85                     | 33                   | 125                       | 3.4           | 6         | 1                     | 1               | 387                     | 349  | 155   |
| TAJD106*050#NJ | D         | 10               | 50                | 85                     | 33                   | 125                       | 5             | 6         | 0.8                   | 1               | 433                     | 390  | 173   |
| TAJE106*050#NJ | E         | 10               | 50                | 85                     | 33                   | 125                       | 5             | 6         | 1                     | 1 <sup>1)</sup> | 406                     | 366  | 162   |
| TAJV106*050#NJ | V         | 10               | 50                | 85                     | 33                   | 125                       | 5             | 6         | 0.65                  | 1 <sup>1)</sup> | 620                     | 558  | 248   |
| TAJD156*050#NJ | D         | 15               | 50                | 85                     | 33                   | 125                       | 7.5           | 6         | 0.6                   | 1               | 500                     | 450  | 200   |
| TAJE156*050#NJ | E         | 15               | 50                | 85                     | 33                   | 125                       | 7.5           | 6         | 0.6                   | 1 <sup>1)</sup> | 524                     | 472  | 210   |
| TAJV156*050#NJ | V         | 15               | 50                | 85                     | 33                   | 125                       | 7.5           | 6         | 0.6                   | 1 <sup>1)</sup> | 645                     | 581  | 258   |
| TAJV226*050#NJ | V         | 22               | 50                | 85                     | 33                   | 125                       | 11            | 8         | 0.6                   | 1 <sup>1)</sup> | 645                     | 581  | 258   |

1<sup>1)</sup> – Dry pack option (see How to order) recommended for reduction of stress during soldering. Dry pack parts should be treated as MSL 3.

Moisture Sensitivity Level (MSL) is defined according to J-STD-020.

For AEC-Q200 availability, please contact AVX.

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 214.

**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.

## Standard Tantalum



## QUALIFICATION TABLE

| TEST                  | TAJ series (Temperature range -55°C to +125°C)                                                                                                                                                                                                                                                 |               |               |                    |                              |           |       |           |            |       |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|--------------------|------------------------------|-----------|-------|-----------|------------|-------|
|                       | Condition                                                                                                                                                                                                                                                                                      |               |               | Characteristics    |                              |           |       |           |            |       |
| Endurance             | Determine after application of rated voltage for 2000 +48/-0 hours at 85±2°C and then leaving 1-2 hours at room temperature. Also determine of 125°C temperature, category voltage for 2000 +48/-0 hours and then leaving 1-2 hours at room temperature. Power supply impedance to be ≤0.1Ω/V. |               |               | Visual examination | no visible damage            |           |       |           |            |       |
|                       |                                                                                                                                                                                                                                                                                                |               |               | DCL                | 1.25 x initial limit         |           |       |           |            |       |
|                       |                                                                                                                                                                                                                                                                                                |               |               | ΔC/C               | within ±10% of initial value |           |       |           |            |       |
|                       |                                                                                                                                                                                                                                                                                                |               |               | DF                 | initial limit                |           |       |           |            |       |
| Humidity              | Determine after storage without applied voltage at 65±2°C and 95±2% relative humidity for 500 hours and then recovery 1-2 hours at room temperature.                                                                                                                                           |               |               | Visual examination | no visible damage            |           |       |           |            |       |
|                       |                                                                                                                                                                                                                                                                                                |               |               | DCL                | initial limit                |           |       |           |            |       |
|                       |                                                                                                                                                                                                                                                                                                |               |               | ΔC/C               | within ±10% of initial value |           |       |           |            |       |
|                       |                                                                                                                                                                                                                                                                                                |               |               | DF                 | 1.2 x initial limit          |           |       |           |            |       |
| Temperature Stability | Step                                                                                                                                                                                                                                                                                           | Temperature°C | Duration(min) |                    | +20°C                        | -55°C     | +20°C | +85°C     | +125°C     | +20°C |
|                       | 1                                                                                                                                                                                                                                                                                              | +20±2         | 15            | DCL                | IL*                          | n/a       | IL*   | 10 x IL*  | 12.5 x IL* | IL*   |
|                       | 2                                                                                                                                                                                                                                                                                              | -55+0/-3      | 15            |                    |                              |           |       |           |            |       |
|                       | 3                                                                                                                                                                                                                                                                                              | +20±2         | 15            |                    |                              |           |       |           |            |       |
|                       | 4                                                                                                                                                                                                                                                                                              | +85+3/-0      | 15            | ΔC/C               | n/a                          | +0/-10%   | ±5%   | +10/-0%   | +12/-0%    | ±5%   |
|                       | 5                                                                                                                                                                                                                                                                                              | +125+3/-0     | 15            | DF                 | IL*                          | 1.5 x IL* | IL*   | 1.5 x IL* | 2 x IL*    | IL*   |
|                       | 6                                                                                                                                                                                                                                                                                              | +20±2         | 15            |                    |                              |           |       |           |            |       |
| Surge Voltage         | Test temperature: 125°C+3/0°C<br>Test voltage: Category voltage at 125°C<br>Surge voltage: 1.3 x category voltage at 125°C<br>Series protection resistance 1000±100Ω<br>Discharge resistance: 1000Ω<br>Number of cycles: 1000x<br>Cycle duration: 6 min; 30 sec charge, 5 min 30 sec discharge |               |               | Visual examination | no visible damage            |           |       |           |            |       |
|                       |                                                                                                                                                                                                                                                                                                |               |               | DCL                | initial limit                |           |       |           |            |       |
|                       |                                                                                                                                                                                                                                                                                                |               |               | ΔC/C               | within ±5% of initial value  |           |       |           |            |       |
|                       |                                                                                                                                                                                                                                                                                                |               |               | DF                 | initial limit                |           |       |           |            |       |

\*Initial Limit

# TAJ Automotive Range



## Standard Tantalum - Automotive Product Range

### TAJ AUTOMOTIVE RANGE CAPACITANCE AND RATED VOLTAGE RANGE (LETTER DENOTES CASE SIZE)

| Capacitance          |                   | Rated voltage DC ( $V_R$ ) to 85°C |                       |                       |                   |                   |                     |                 |
|----------------------|-------------------|------------------------------------|-----------------------|-----------------------|-------------------|-------------------|---------------------|-----------------|
| $\mu\text{F}$        | Code              | 6.3V (J)                           | 10V (A)               | 16V (C)               | 20V (D)           | 25V (E)           | 35V (V)             | 50V (T)         |
| 0.10<br>0.15<br>0.22 | 104<br>154<br>224 |                                    |                       |                       |                   |                   |                     | A               |
| 0.33<br>0.47<br>0.68 | 334<br>474<br>684 |                                    |                       |                       |                   | A<br>A            | A<br>A<br>A         | A<br>A/B<br>B   |
| 1.0<br>1.5<br>2.2    | 105<br>155<br>225 |                                    | A                     | A                     | A<br>A<br>A/B     | A<br>A<br>A/B     | A/B<br>A/B<br>B/C   | B/C<br>C<br>C/D |
| 3.3<br>4.7<br>6.8    | 335<br>475<br>685 | A                                  | A/B<br>A/B            | A/B<br>A/B<br>A/B     | A/B<br>A/B<br>B/C | B<br>B/C<br>B/C   | B/C<br>B/C/D<br>C/D | C/D<br>C/D<br>D |
| 10<br>15<br>22       | 106<br>156<br>226 | A/B<br>A<br>A/B/C                  | A/B<br>A/B/C<br>A/B/C | A/B/C<br>B/C<br>B/C/D | B/C<br>B/C<br>C/D | C/D<br>C/D<br>C/D | C/D<br>D<br>D/E     | D/E<br>E        |
| 33<br>47<br>68       | 336<br>476<br>686 | A/B<br>B/C<br>B/C                  | B/C<br>B/C/D<br>C/D   | C/D<br>C/D<br>C/D     | C/D<br>D<br>D/E   | D<br>D/E          | E                   |                 |
| 100<br>150<br>220    | 107<br>157<br>227 | C/D<br>C/D<br>D                    | C/D<br>D/E<br>D/E     | D/E<br>E              | E                 |                   |                     |                 |
| 330<br>470<br>680    | 337<br>477<br>687 | D/E<br>D/E<br>E                    | E                     |                       |                   |                   |                     |                 |

Not recommended for new designs, higher voltage or smaller case size substitution are offered.

Released codes

Engineering samples - please contact manufacturer

Note: Voltage ratings are minimum values. AVX reserves the right to supply higher ratings in the same case size, to the same reliability standards.

### HOW TO ORDER

|            |                              |                                                                                                                                        |                                               |                                                                                                                            |                                                                                    |                                         |                                               |
|------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------------|
| <b>TAJ</b> | <b>C</b>                     | <b>106</b>                                                                                                                             | <b>M</b>                                      | <b>035</b>                                                                                                                 | <b>T</b>                                                                           | <b>NJ</b>                               | <b>V</b>                                      |
| Type       | Case Size<br>See table above | Capacitance Code<br>pF code: 1st two digits represent significant figures, 3rd digit represents multiplier (number of zeros to follow) | Tolerance<br>K = $\pm 10\%$<br>M = $\pm 20\%$ | Rated DC Voltage<br>006 = 6.3Vdc<br>010 = 10Vdc<br>016 = 16Vdc<br>020 = 20Vdc<br>025 = 25Vdc<br>035 = 35Vdc<br>050 = 50Vdc | Packaging<br>T = Automotive Lead Free 7" Reel<br>U = Automotive Lead Free 13" Reel | Specification Suffix<br>NJ = Std Suffix | Dry Pack Option<br>(D,E case sizes mandatory) |



### TECHNICAL SPECIFICATIONS

Technical Data:

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

|                               |                                                                                                                  |     |    |    |    |    |    |    |
|-------------------------------|------------------------------------------------------------------------------------------------------------------|-----|----|----|----|----|----|----|
| Capacitance Range:            | 0.22 $\mu\text{F}$ to 680 $\mu\text{F}$                                                                          |     |    |    |    |    |    |    |
| Capacitance Tolerance:        | $\pm 10\%$ ; $\pm 20\%$                                                                                          |     |    |    |    |    |    |    |
| Rated Voltage ( $V_R$ )       | $\leq +85^\circ\text{C}$ :                                                                                       | 6.3 | 10 | 16 | 20 | 25 | 35 | 50 |
| Category Voltage ( $V_C$ )    | $\leq +125^\circ\text{C}$ :                                                                                      | 4   | 7  | 10 | 13 | 17 | 23 | 33 |
| Surge Voltage ( $V_S$ )       | $\leq +85^\circ\text{C}$ :                                                                                       | 8   | 13 | 20 | 26 | 32 | 46 | 65 |
| Surge Voltage ( $V_S$ )       | $\leq +125^\circ\text{C}$ :                                                                                      | 5   | 8  | 13 | 16 | 20 | 28 | 40 |
| Temperature Range:            | $-55^\circ\text{C}$ to $+125^\circ\text{C}$                                                                      |     |    |    |    |    |    |    |
| Environmental Classification: | 55/125/56 (IEC 68-2)                                                                                             |     |    |    |    |    |    |    |
| Reliability:                  | 1% per 1000 hours at $85^\circ\text{C}$ , $V_R$ with $0.1\Omega/\text{V}$ series impedance, 60% confidence level |     |    |    |    |    |    |    |
| Termination Finished:         | Sn Plating (standard), Gold and SnPb Plating upon request                                                        |     |    |    |    |    |    |    |
|                               | Meets requirements of AEC-Q200                                                                                   |     |    |    |    |    |    |    |



# TAJ Automotive Range



## Standard Tantalum - Automotive Product Range

### RATINGS & PART NUMBER REFERENCE

| AVX<br>Part No. | Case<br>Size | Capacitance<br>(µF) | Rated<br>Voltage<br>(V) | Rated<br>Temperature<br>(°C) | Category<br>Voltage<br>(V) | Category<br>Temperature<br>(°C) | DCL<br>(µA)<br>Max. | DF<br>%<br>Max. | ESR<br>Max. (Ω)<br>@ 100kHz | MSL | 100kHz RMS Current (mA) |      |       |  |
|-----------------|--------------|---------------------|-------------------------|------------------------------|----------------------------|---------------------------------|---------------------|-----------------|-----------------------------|-----|-------------------------|------|-------|--|
|                 |              |                     |                         |                              |                            |                                 |                     |                 |                             |     | 25°C                    | 85°C | 125°C |  |
| 6.3 Volt @ 85°C |              |                     |                         |                              |                            |                                 |                     |                 |                             |     |                         |      |       |  |
| TAJA335*006TNJ  | A            | 3.3                 | 6.3                     | 85                           | 4                          | 125                             | 0.5                 | 6               | 7                           | 1   | 104                     | 93   | 41    |  |
| TAJA106*006TNJ  | A            | 10                  | 6.3                     | 85                           | 4                          | 125                             | 0.6                 | 6               | 4                           | 1   | 137                     | 123  | 55    |  |
| TAJB106*006TNJ  | B            | 10                  | 6.3                     | 85                           | 4                          | 125                             | 0.6                 | 6               | 3                           | 1   | 168                     | 151  | 67    |  |
| TAJA156*006TNJ  | A            | 15                  | 6.3                     | 85                           | 4                          | 125                             | 0.9                 | 6               | 3.5                         | 1   | 146                     | 132  | 59    |  |
| TAJA226*006TNJ  | A            | 22                  | 6.3                     | 85                           | 4                          | 125                             | 1.4                 | 6               | 3                           | 1   | 158                     | 142  | 63    |  |
| TAJB226*006TNJ  | B            | 22                  | 6.3                     | 85                           | 4                          | 125                             | 1.4                 | 6               | 2.5                         | 1   | 184                     | 166  | 74    |  |
| TAJC226*006TNJ  | C            | 22                  | 6.3                     | 85                           | 4                          | 125                             | 1.4                 | 6               | 2                           | 1   | 235                     | 211  | 94    |  |
| TAJA336*006TNJ  | A            | 33                  | 6.3                     | 85                           | 4                          | 125                             | 2.1                 | 8               | 2.2                         | 1   | 185                     | 166  | 74    |  |
| TAJB336*006TNJ  | B            | 33                  | 6.3                     | 85                           | 4                          | 125                             | 2.1                 | 6               | 2.2                         | 1   | 197                     | 177  | 79    |  |
| TAJB476*006TNJ  | B            | 47                  | 6.3                     | 85                           | 4                          | 125                             | 3                   | 6               | 2                           | 1   | 206                     | 186  | 82    |  |
| TAJC476*006TNJ  | C            | 47                  | 6.3                     | 85                           | 4                          | 125                             | 3                   | 6               | 1.6                         | 1   | 262                     | 236  | 105   |  |
| TAJB686*006TNJ  | B            | 68                  | 6.3                     | 85                           | 4                          | 125                             | 4                   | 8               | 0.9                         | 1   | 307                     | 277  | 123   |  |
| TAJC686*006TNJ  | C            | 68                  | 6.3                     | 85                           | 4                          | 125                             | 4.3                 | 6               | 1.5                         | 1   | 271                     | 244  | 108   |  |
| TAJC107*006TNJ  | C            | 100                 | 6.3                     | 85                           | 4                          | 125                             | 6.3                 | 6               | 0.9                         | 1   | 350                     | 315  | 140   |  |
| TAJD107*006TNJV | D            | 100                 | 6.3                     | 85                           | 4                          | 125                             | 6.3                 | 6               | 0.9                         | 3   | 408                     | 367  | 163   |  |
| TAJC157*006TNJ  | C            | 150                 | 6.3                     | 85                           | 4                          | 125                             | 9.5                 | 6               | 1.3                         | 1   | 291                     | 262  | 116   |  |
| TAJD157*006TNJV | D            | 150                 | 6.3                     | 85                           | 4                          | 125                             | 9.5                 | 6               | 0.9                         | 3   | 408                     | 367  | 163   |  |
| TAJD227*006TNJV | D            | 220                 | 6.3                     | 85                           | 4                          | 125                             | 13.9                | 8               | 0.4                         | 3   | 612                     | 551  | 245   |  |
| TAJD337*006TNJV | D            | 330                 | 6.3                     | 85                           | 4                          | 125                             | 20.8                | 8               | 0.4                         | 3   | 612                     | 551  | 245   |  |
| TAJE337*006TNJV | E            | 330                 | 6.3                     | 85                           | 4                          | 125                             | 20.8                | 8               | 0.4                         | 3   | 642                     | 578  | 257   |  |
| TAJD477*006TNJV | D            | 470                 | 6.3                     | 85                           | 4                          | 125                             | 28                  | 12              | 0.4                         | 3   | 612                     | 551  | 245   |  |
| TAJE477*006TNJV | E            | 470                 | 6.3                     | 85                           | 4                          | 125                             | 28                  | 10              | 0.4                         | 3   | 642                     | 578  | 257   |  |
| TAJE687*006TNJV | E            | 680                 | 6.3                     | 85                           | 4                          | 125                             | 42.8                | 10              | 0.5                         | 3   | 574                     | 517  | 230   |  |
| 10 Volt @ 85°C  |              |                     |                         |                              |                            |                                 |                     |                 |                             |     |                         |      |       |  |
| TAJA225*010TNJ  | A            | 2.2                 | 10                      | 85                           | 7                          | 125                             | 0.5                 | 6               | 7                           | 1   | 104                     | 93   | 41    |  |
| TAJA475*010TNJ  | A            | 4.7                 | 10                      | 85                           | 7                          | 125                             | 0.5                 | 6               | 5                           | 1   | 122                     | 110  | 49    |  |
| TAJB475*010TNJ  | B            | 4.7                 | 10                      | 85                           | 7                          | 125                             | 0.5                 | 6               | 4                           | 1   | 146                     | 131  | 58    |  |
| TAJA685*010TNJ  | A            | 6.8                 | 10                      | 85                           | 7                          | 125                             | 0.7                 | 6               | 4                           | 1   | 137                     | 123  | 55    |  |
| TAJB685*010TNJ  | B            | 6.8                 | 10                      | 85                           | 7                          | 125                             | 0.7                 | 6               | 3                           | 1   | 168                     | 151  | 67    |  |
| TAJA106*010TNJ  | A            | 10                  | 10                      | 85                           | 7                          | 125                             | 1                   | 6               | 3                           | 1   | 158                     | 142  | 63    |  |
| TAJB106*010TNJ  | B            | 10                  | 10                      | 85                           | 7                          | 125                             | 1                   | 6               | 2.1                         | 1   | 201                     | 181  | 80    |  |
| TAJA156*010TNJ  | A            | 15                  | 10                      | 85                           | 7                          | 125                             | 1.5                 | 6               | 3.2                         | 1   | 153                     | 138  | 61    |  |
| TAJB156*010TNJ  | B            | 15                  | 10                      | 85                           | 7                          | 125                             | 1.5                 | 6               | 2.8                         | 1   | 174                     | 157  | 70    |  |
| TAJC156*010TNJ  | C            | 15                  | 10                      | 85                           | 7                          | 125                             | 1.5                 | 6               | 2                           | 1   | 235                     | 211  | 94    |  |
| TAJA226*010TNJ  | A            | 22                  | 10                      | 85                           | 7                          | 125                             | 2.2                 | 8               | 3                           | 1   | 158                     | 142  | 63    |  |
| TAJB226*010TNJ  | B            | 22                  | 10                      | 85                           | 7                          | 125                             | 2.2                 | 6               | 2.4                         | 1   | 188                     | 169  | 75    |  |
| TAJC226*010TNJ  | C            | 22                  | 10                      | 85                           | 7                          | 125                             | 2.2                 | 6               | 1.8                         | 1   | 247                     | 222  | 99    |  |
| TAJB336*010TNJ  | B            | 33                  | 10                      | 85                           | 7                          | 125                             | 3.3                 | 6               | 1.8                         | 1   | 217                     | 196  | 87    |  |
| TAJC336*010TNJ  | C            | 33                  | 10                      | 85                           | 7                          | 125                             | 3.3                 | 6               | 1.6                         | 1   | 262                     | 236  | 105   |  |
| TAJB476*010TNJ  | B            | 47                  | 10                      | 85                           | 7                          | 125                             | 4.7                 | 8               | 1                           | 1   | 292                     | 262  | 117   |  |
| TAJC476*010TNJ  | C            | 47                  | 10                      | 85                           | 7                          | 125                             | 4.7                 | 6               | 1.2                         | 1   | 303                     | 272  | 121   |  |
| TAJD476*010TNJV | D            | 47                  | 10                      | 85                           | 7                          | 125                             | 4.7                 | 6               | 0.4                         | 3   | 612                     | 551  | 245   |  |
| TAJC686*010TNJ  | C            | 68                  | 10                      | 85                           | 7                          | 125                             | 6.8                 | 6               | 1.3                         | 1   | 291                     | 262  | 116   |  |
| TAJD686*010TNJV | D            | 68                  | 10                      | 85                           | 7                          | 125                             | 6.8                 | 6               | 0.9                         | 3   | 408                     | 367  | 163   |  |
| TAJC107*010TNJ  | C            | 100                 | 10                      | 85                           | 7                          | 125                             | 10                  | 8               | 1.2                         | 1   | 303                     | 272  | 121   |  |
| TAJD107*010TNJV | D            | 100                 | 10                      | 85                           | 7                          | 125                             | 10                  | 6               | 0.9                         | 3   | 408                     | 367  | 163   |  |
| TAJD157*010TNJV | D            | 150                 | 10                      | 85                           | 7                          | 125                             | 15                  | 8               | 0.9                         | 3   | 408                     | 367  | 163   |  |
| TAJE157*010TNJV | E            | 150                 | 10                      | 85                           | 7                          | 125                             | 15                  | 8               | 0.9                         | 3   | 428                     | 385  | 171   |  |
| TAJD227*010TNJV | D            | 220                 | 10                      | 85                           | 7                          | 125                             | 22                  | 8               | 0.5                         | 3   | 548                     | 493  | 219   |  |
| TAJE227*010TNJV | E            | 220                 | 10                      | 85                           | 7                          | 125                             | 22                  | 8               | 0.5                         | 3   | 574                     | 517  | 230   |  |
| TAJE337*010TNJV | E            | 330                 | 10                      | 85                           | 7                          | 125                             | 33                  | 8               | 0.9                         | 3   | 428                     | 385  | 171   |  |
| 16 Volt @ 85°C  |              |                     |                         |                              |                            |                                 |                     |                 |                             |     |                         |      |       |  |
| TAJA105*016TNJ  | A            | 1                   | 16                      | 85                           | 10                         | 125                             | 0.5                 | 4               | 11                          | 1   | 83                      | 74   | 33    |  |
| TAJA225*016TNJ  | A            | 2.2                 | 16                      | 85                           | 10                         | 125                             | 0.5                 | 6               | 6.5                         | 1   | 107                     | 97   | 43    |  |
| TAJA335*016TNJ  | A            | 3.3                 | 16                      | 85                           | 10                         | 125                             | 0.5                 | 6               | 5                           | 1   | 122                     | 110  | 49    |  |
| TAJB335*016TNJ  | B            | 3.3                 | 16                      | 85                           | 10                         | 125                             | 0.5                 | 6               | 4.5                         | 1   | 137                     | 124  | 55    |  |
| TAJA475*016TNJ  | A            | 4.7                 | 16                      | 85                           | 10                         | 125                             | 0.8                 | 6               | 4                           | 1   | 137                     | 123  | 55    |  |
| TAJB475*016TNJ  | B            | 4.7                 | 16                      | 85                           | 10                         | 125                             | 0.8                 | 6               | 3.5                         | 1   | 156                     | 140  | 62    |  |
| TAJA685*016TNJ  | A            | 6.8                 | 16                      | 85                           | 10                         | 125                             | 1.1                 | 6               | 3.5                         | 1   | 146                     | 132  | 59    |  |
| TAJB685*016TNJ  | B            | 6.8                 | 16                      | 85                           | 10                         | 125                             | 1.1                 | 6               | 2.5                         | 1   | 184                     | 166  | 74    |  |
| TAJA106*016TNJ  | A            | 10                  | 16                      | 85                           | 10                         | 125                             | 1.6                 | 6               | 3                           | 1   | 158                     | 142  | 63    |  |
| TAJB106*016TNJ  | B            | 10                  | 16                      | 85                           | 10                         | 125                             | 1.6                 | 6               | 2.8                         | 1   | 174                     | 157  | 70    |  |
| TAJC106*016TNJ  | C            | 10                  | 16                      | 85                           | 10                         | 125                             | 1.6                 | 6               | 2                           | 1   | 235                     | 211  | 94    |  |
| TAJB156*016TNJ  | B            | 15                  | 16                      | 85                           | 10                         | 125                             | 2.4                 | 6               | 2.5                         | 1   | 184                     | 166  | 74    |  |
| TAJC156*016TNJ  | C            | 15                  | 16                      | 85                           | 10                         | 125                             | 2.4                 | 6               | 1.8                         | 1   | 247                     | 222  | 99    |  |
| TAJB226*016TNJ  | B            | 22                  | 16                      | 85                           | 10                         | 125                             | 3.5                 | 6               | 2.3                         | 1   | 192                     | 173  | 77    |  |
| TAJC226*016TNJ  | C            | 22                  | 16                      | 85                           | 10                         | 125                             | 3.5                 | 6               | 1                           | 1   | 332                     | 298  | 133   |  |
| TAJD226*016TNJV | D            | 22                  | 16                      | 85                           | 10                         | 125                             | 3.5                 | 6               | 1.1                         | 3   | 369                     | 332  | 148   |  |
| TAJC336*016TNJ  | C            | 33                  | 16                      | 85                           | 10                         | 125                             | 5.3                 | 6               | 1.5                         | 1   | 271                     | 244  | 108   |  |
| TAJD336*016TNJV | D            | 33                  | 16                      | 85                           | 10                         | 125                             | 5.3                 | 6               | 0.9                         | 3   | 408                     | 367  | 163   |  |

# TAJ Automotive Range



## Standard Tantalum - Automotive Product Range

### RATINGS & PART NUMBER REFERENCE

| AVX Part No.          | Case Size | Capacitance (µF) | Rated Voltage (V) | Rated Temperature (°C) | Category Voltage (V) | Category Temperature (°C) | DCL (µA) Max. | DF % Max. | ESR Max. (Ω) @ 100kHz | MSL | 100kHz RMS Current (mA) |      |       |
|-----------------------|-----------|------------------|-------------------|------------------------|----------------------|---------------------------|---------------|-----------|-----------------------|-----|-------------------------|------|-------|
|                       |           |                  |                   |                        |                      |                           |               |           |                       |     | 25°C                    | 85°C | 125°C |
| TAJC476*016TNJ        | C         | 47               | 16                | 85                     | 10                   | 125                       | 7.5           | 6         | 0.5                   | 1   | 469                     | 422  | 188   |
| TAJD476*016TNJV       | D         | 47               | 16                | 85                     | 10                   | 125                       | 7.5           | 6         | 0.9                   | 3   | 408                     | 367  | 163   |
| TAJC686*016TNJ        | C         | 68               | 16                | 85                     | 10                   | 125                       | 10.9          | 6         | 1.3                   | 1   | 291                     | 262  | 116   |
| TAJD686*016TNJV       | D         | 68               | 16                | 85                     | 10                   | 125                       | 10.9          | 6         | 0.9                   | 3   | 408                     | 367  | 163   |
| TAJD107*016TNJV       | D         | 100              | 16                | 85                     | 10                   | 125                       | 16            | 6         | 0.6                   | 3   | 500                     | 450  | 200   |
| TAJE107*016TNJV       | E         | 100              | 16                | 85                     | 10                   | 125                       | 16            | 6         | 0.9                   | 3   | 428                     | 385  | 171   |
| TAJE157*016TNJV       | E         | 150              | 16                | 85                     | 10                   | 125                       | 23            | 8         | 0.3                   | 3   | 742                     | 667  | 297   |
| <b>20 Volt @ 85°C</b> |           |                  |                   |                        |                      |                           |               |           |                       |     |                         |      |       |
| TAJA105*020TNJ        | A         | 1                | 20                | 85                     | 13                   | 125                       | 0.5           | 4         | 9                     | 1   | 91                      | 82   | 37    |
| TAJA155*020TNJ        | A         | 1.5              | 20                | 85                     | 13                   | 125                       | 0.5           | 6         | 6.5                   | 1   | 107                     | 97   | 43    |
| TAJA225*020TNJ        | A         | 2.2              | 20                | 85                     | 13                   | 125                       | 0.5           | 6         | 5.3                   | 1   | 119                     | 107  | 48    |
| TAJB225*020TNJ        | B         | 2.2              | 20                | 85                     | 13                   | 125                       | 0.5           | 6         | 3.5                   | 1   | 156                     | 140  | 62    |
| TAJA335*020TNJ        | A         | 3.3              | 20                | 85                     | 13                   | 125                       | 0.7           | 6         | 4.5                   | 1   | 129                     | 116  | 52    |
| TAJB335*020TNJ        | B         | 3.3              | 20                | 85                     | 13                   | 125                       | 0.7           | 6         | 3                     | 1   | 168                     | 151  | 67    |
| TAJA475*020TNJ        | A         | 4.7              | 20                | 85                     | 13                   | 125                       | 0.9           | 6         | 4                     | 1   | 137                     | 123  | 55    |
| TAJB475*020TNJ        | B         | 4.7              | 20                | 85                     | 13                   | 125                       | 0.9           | 6         | 3                     | 1   | 168                     | 151  | 67    |
| TAJB685*020TNJ        | B         | 6.8              | 20                | 85                     | 13                   | 125                       | 1.4           | 6         | 2.5                   | 1   | 184                     | 166  | 74    |
| TAJC685*020TNJ        | C         | 6.8              | 20                | 85                     | 13                   | 125                       | 1.4           | 6         | 2                     | 1   | 235                     | 211  | 94    |
| TAJB106*020TNJ        | B         | 10               | 20                | 85                     | 13                   | 125                       | 2             | 6         | 2.1                   | 1   | 201                     | 181  | 80    |
| TAJC106*020TNJ        | C         | 10               | 20                | 85                     | 13                   | 125                       | 2             | 6         | 1.2                   | 1   | 303                     | 272  | 121   |
| TAJB156*020TNJ        | B         | 15               | 20                | 85                     | 13                   | 125                       | 3             | 6         | 2                     | 1   | 206                     | 186  | 82    |
| TAJC156*020TNJ        | C         | 15               | 20                | 85                     | 13                   | 125                       | 3             | 6         | 1.7                   | 1   | 254                     | 229  | 102   |
| TAJC226*020TNJ        | C         | 22               | 20                | 85                     | 13                   | 125                       | 4.4           | 6         | 1.6                   | 1   | 262                     | 236  | 105   |
| TAJD226*020TNJV       | D         | 22               | 20                | 85                     | 13                   | 125                       | 4.4           | 6         | 0.9                   | 3   | 408                     | 367  | 163   |
| TAJC336*020TNJ        | C         | 33               | 20                | 85                     | 13                   | 125                       | 6.6           | 6         | 1.5                   | 1   | 271                     | 244  | 108   |
| TAJD336*020TNJV       | D         | 33               | 20                | 85                     | 13                   | 125                       | 6.6           | 6         | 0.9                   | 3   | 408                     | 367  | 163   |
| TAJD476*020TNJV       | D         | 47               | 20                | 85                     | 13                   | 125                       | 9.4           | 6         | 0.9                   | 3   | 408                     | 367  | 163   |
| TAJD686*020TNJV       | D         | 68               | 20                | 85                     | 13                   | 125                       | 13.6          | 6         | 0.4                   | 3   | 612                     | 551  | 245   |
| TAJE686*020TNJV       | E         | 68               | 20                | 85                     | 13                   | 125                       | 13.6          | 6         | 0.9                   | 3   | 428                     | 385  | 171   |
| TAJE107*020TNJV       | E         | 100              | 20                | 85                     | 13                   | 125                       | 20            | 6         | 0.4                   | 3   | 642                     | 578  | 257   |
| <b>25 Volt @ 85°C</b> |           |                  |                   |                        |                      |                           |               |           |                       |     |                         |      |       |
| TAJA474*025TNJ        | A         | 0.47             | 25                | 85                     | 17                   | 125                       | 0.5           | 4         | 14                    | 1   | 73                      | 66   | 29    |
| TAJA684*025TNJ        | A         | 0.68             | 25                | 85                     | 17                   | 125                       | 0.5           | 4         | 10                    | 1   | 87                      | 78   | 35    |
| TAJA105*025TNJ        | A         | 1                | 25                | 85                     | 17                   | 125                       | 0.5           | 4         | 8                     | 1   | 97                      | 87   | 39    |
| TAJA155*025TNJ        | A         | 1.5              | 25                | 85                     | 17                   | 125                       | 0.5           | 6         | 7.5                   | 1   | 100                     | 90   | 40    |
| TAJA225*025TNJ        | A         | 2.2              | 25                | 85                     | 17                   | 125                       | 0.6           | 6         | 7                     | 1   | 104                     | 93   | 41    |
| TAJB225*025TNJ        | B         | 2.2              | 25                | 85                     | 17                   | 125                       | 0.6           | 6         | 4.5                   | 1   | 137                     | 124  | 55    |
| TAJB335*025TNJ        | B         | 3.3              | 25                | 85                     | 17                   | 125                       | 0.8           | 6         | 3.5                   | 1   | 156                     | 140  | 62    |
| TAJB475*025TNJ        | B         | 4.7              | 25                | 85                     | 17                   | 125                       | 1.2           | 6         | 1.5                   | 1   | 238                     | 214  | 95    |
| TAJC475*025TNJ        | C         | 4.7              | 25                | 85                     | 17                   | 125                       | 1.2           | 6         | 2.4                   | 1   | 214                     | 193  | 86    |
| TAJB685*025TNJ        | B         | 6.8              | 25                | 85                     | 17                   | 125                       | 1.7           | 6         | 2.8                   | 1   | 174                     | 157  | 70    |
| TAJC685*025TNJ        | C         | 6.8              | 25                | 85                     | 17                   | 125                       | 1.7           | 6         | 2                     | 1   | 235                     | 211  | 94    |
| TAJC106*025TNJ        | C         | 10               | 25                | 85                     | 17                   | 125                       | 2.5           | 6         | 1.8                   | 1   | 247                     | 222  | 99    |
| TAJD106*025TNJV       | D         | 10               | 25                | 85                     | 17                   | 125                       | 2.5           | 6         | 1.2                   | 3   | 354                     | 318  | 141   |
| TAJC156*025TNJ        | C         | 15               | 25                | 85                     | 17                   | 125                       | 3.8           | 6         | 1.6                   | 1   | 262                     | 236  | 105   |
| TAJD156*025TNJV       | D         | 15               | 25                | 85                     | 17                   | 125                       | 3.8           | 6         | 1                     | 3   | 387                     | 349  | 155   |
| TAJC226*025TNJ        | C         | 22               | 25                | 85                     | 17                   | 125                       | 5.5           | 6         | 1.4                   | 1   | 280                     | 252  | 112   |
| TAJD226*025TNJV       | D         | 22               | 25                | 85                     | 17                   | 125                       | 5.5           | 6         | 0.9                   | 3   | 408                     | 367  | 163   |
| TAJD336*025TNJV       | D         | 33               | 25                | 85                     | 17                   | 125                       | 8.3           | 6         | 0.9                   | 3   | 408                     | 367  | 163   |
| TAJD476*025TNJV       | D         | 47               | 25                | 85                     | 17                   | 125                       | 11.8          | 6         | 0.9                   | 3   | 408                     | 367  | 163   |
| TAJE476*025TNJV       | E         | 47               | 25                | 85                     | 17                   | 125                       | 11.8          | 6         | 0.9                   | 3   | 428                     | 385  | 171   |
| <b>35 Volt @ 85°C</b> |           |                  |                   |                        |                      |                           |               |           |                       |     |                         |      |       |
| TAJA334*035TNJ        | A         | 0.33             | 35                | 85                     | 23                   | 125                       | 0.5           | 4         | 15                    | 1   | 71                      | 64   | 28    |
| TAJA474*035TNJ        | A         | 0.47             | 35                | 85                     | 23                   | 125                       | 0.5           | 4         | 12                    | 1   | 79                      | 71   | 32    |
| TAJA684*035TNJ        | A         | 0.68             | 35                | 85                     | 23                   | 125                       | 0.5           | 4         | 8                     | 1   | 97                      | 87   | 39    |
| TAJA105*035TNJ        | A         | 1                | 35                | 85                     | 23                   | 125                       | 0.5           | 4         | 7.5                   | 1   | 100                     | 90   | 40    |
| TAJB105*035TNJ        | B         | 1                | 35                | 85                     | 23                   | 125                       | 0.5           | 4         | 6.5                   | 1   | 114                     | 103  | 46    |
| TAJA155*035TNJ        | A         | 1.5              | 35                | 85                     | 23                   | 125                       | 0.5           | 6         | 7.5                   | 1   | 100                     | 90   | 40    |
| TAJB155*035TNJ        | B         | 1.5              | 35                | 85                     | 23                   | 125                       | 0.5           | 6         | 5.2                   | 1   | 128                     | 115  | 51    |
| TAJB225*035TNJ        | B         | 2.2              | 35                | 85                     | 23                   | 125                       | 0.8           | 6         | 4.2                   | 1   | 142                     | 128  | 57    |
| TAJC225*035TNJ        | C         | 2.2              | 35                | 85                     | 23                   | 125                       | 0.8           | 6         | 3.5                   | 1   | 177                     | 160  | 71    |
| TAJB335*035TNJ        | B         | 3.3              | 35                | 85                     | 23                   | 125                       | 1.2           | 6         | 3.5                   | 1   | 156                     | 140  | 62    |
| TAJC335*035TNJ        | C         | 3.3              | 35                | 85                     | 23                   | 125                       | 1.2           | 6         | 2.5                   | 1   | 210                     | 189  | 84    |
| TAJB475*035TNJ        | B         | 4.7              | 35                | 85                     | 23                   | 125                       | 1.6           | 6         | 3.1                   | 1   | 166                     | 149  | 66    |
| TAJC475*035TNJ        | C         | 4.7              | 35                | 85                     | 23                   | 125                       | 1.6           | 6         | 2.2                   | 1   | 224                     | 201  | 89    |
| TAJD475*035TNJV       | D         | 4.7              | 35                | 85                     | 23                   | 125                       | 1.6           | 6         | 1.5                   | 3   | 316                     | 285  | 126   |
| TAJC685*035TNJ        | C         | 6.8              | 35                | 85                     | 23                   | 125                       | 2.4           | 6         | 1.8                   | 1   | 247                     | 222  | 99    |
| TAJD685*035TNJV       | D         | 6.8              | 35                | 85                     | 23                   | 125                       | 2.4           | 6         | 1.3                   | 3   | 340                     | 306  | 136   |
| TAJC106*035TNJ        | C         | 10               | 35                | 85                     | 23                   | 125                       | 3.5           | 6         | 1.6                   | 1   | 262                     | 236  | 105   |
| TAJD106*035TNJV       | D         | 10               | 35                | 85                     | 23                   | 125                       | 3.5           | 6         | 1                     | 3   | 387                     | 349  | 155   |
| TAJD156*035TNJV       | D         | 15               | 35                | 85                     | 23                   | 125                       | 5.3           | 6         | 0.9                   | 3   | 408                     | 367  | 163   |

# TAJ Automotive Range



## Standard Tantalum - Automotive Product Range

### RATINGS & PART NUMBER REFERENCE

| AVX Part No.          | Case Size | Capacitance (µF) | Rated Voltage (V) | Rated Temperature (°C) | Category Voltage (V) | Category Temperature (°C) | DCL (µA) Max. | DF % Max. | ESR Max. (Ω) @ 100kHz | MSL | 100kHz RMS Current (mA) |      |       |
|-----------------------|-----------|------------------|-------------------|------------------------|----------------------|---------------------------|---------------|-----------|-----------------------|-----|-------------------------|------|-------|
|                       |           |                  |                   |                        |                      |                           |               |           |                       |     | 25°C                    | 85°C | 125°C |
| TAJD226*035TNJV       | D         | 22               | 35                | 85                     | 23                   | 125                       | 7.7           | 6         | 0.9                   | 3   | 408                     | 367  | 163   |
| TAJE226*035TNJV       | E         | 22               | 35                | 85                     | 23                   | 125                       | 7.7           | 6         | 0.5                   | 3   | 574                     | 517  | 230   |
| TAJE336*035TNJV       | E         | 33               | 35                | 85                     | 23                   | 125                       | 11.6          | 6         | 0.9                   | 3   | 428                     | 385  | 171   |
| <b>50 Volt @ 85°C</b> |           |                  |                   |                        |                      |                           |               |           |                       |     |                         |      |       |
| TAJA224*050TNJ        | A         | 0.22             | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 18                    | 1   | 65                      | 58   | 26    |
| TAJA334*050TNJ        | A         | 0.33             | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 17                    | 1   | 66                      | 60   | 27    |
| TAJA474*050TNJ        | A         | 0.47             | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 9.5                   | 1   | 89                      | 80   | 36    |
| TAJB474*050TNJ        | B         | 0.47             | 50                | 85                     | 33                   | 125                       | 0.7           | 4         | 9.5                   | 1   | 95                      | 85   | 38    |
| TAJB684*050TNJ        | B         | 0.68             | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 8                     | 1   | 103                     | 93   | 41    |
| TAJB105*050TNJ        | B         | 1                | 50                | 85                     | 33                   | 125                       | 0.5           | 6         | 7                     | 1   | 110                     | 99   | 44    |
| TAJC105*050TNJ        | C         | 1                | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 5.5                   | 1   | 141                     | 127  | 57    |
| TAJC155*050TNJ        | C         | 1.5              | 50                | 85                     | 33                   | 125                       | 0.8           | 6         | 4.5                   | 1   | 156                     | 141  | 63    |
| TAJC225*050TNJ        | C         | 2.2              | 50                | 85                     | 33                   | 125                       | 1.1           | 8         | 2.5                   | 1   | 210                     | 189  | 84    |
| TAJD225*050TNJV       | D         | 2.2              | 50                | 85                     | 33                   | 125                       | 1.1           | 6         | 2.5                   | 3   | 245                     | 220  | 98    |
| TAJC335*050TNJ        | C         | 3.3              | 50                | 85                     | 33                   | 125                       | 1.6           | 6         | 2.5                   | 1   | 210                     | 189  | 84    |
| TAJD335*050TNJV       | D         | 3.3              | 50                | 85                     | 33                   | 125                       | 1.7           | 6         | 2                     | 3   | 274                     | 246  | 110   |
| TAJC475*050TNJ        | C         | 4.7              | 50                | 85                     | 33                   | 125                       | 0.5           | 4         | 1.4                   | 1   | 280                     | 252  | 112   |
| TAJD475*050TNJV       | D         | 4.7              | 50                | 85                     | 33                   | 125                       | 2.4           | 6         | 1.4                   | 3   | 327                     | 295  | 131   |
| TAJD685*050TNJV       | D         | 6.8              | 50                | 85                     | 33                   | 125                       | 3.4           | 6         | 1                     | 3   | 387                     | 349  | 155   |
| TAJD106*050TNJV       | D         | 10               | 50                | 85                     | 33                   | 125                       | 5             | 6         | 0.8                   | 3   | 433                     | 390  | 173   |
| TAJE106*050TNJV       | E         | 10               | 50                | 85                     | 33                   | 125                       | 5             | 6         | 1                     | 3   | 406                     | 366  | 162   |
| TAJE156*050TNJV       | E         | 15               | 50                | 85                     | 33                   | 125                       | 7.5           | 6         | 0.6                   | 3   | 524                     | 472  | 210   |

Moisture Sensitivity Level (MSL) is defined according to J-STD-020

\*Please use "U" instead of "T" in the suffix letter for 13" reel packaging

**Please use specific PN for automotive version – see "HOW TO ORDER".**

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 214.

**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.**

### QUALIFICATION TABLE

| TEST                         | TAJ automotive series (Temperature range -55°C to +125°C)                                                                                                                                                                                                                                      |               |               |                    |                              |           |       |           |            |       |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|--------------------|------------------------------|-----------|-------|-----------|------------|-------|
|                              | Condition                                                                                                                                                                                                                                                                                      |               |               | Characteristics    |                              |           |       |           |            |       |
| <b>Endurance</b>             | Determine after application of rated voltage for 2000 +48/-0 hours at 85±2°C and then leaving 1-2 hours at room temperature. Also determine of 125°C temperature, category voltage for 2000 +48/-0 hours and then leaving 1-2 hours at room temperature. Power supply impedance to be ≤0.1Ω/V. |               |               | Visual examination | no visible damage            |           |       |           |            |       |
|                              |                                                                                                                                                                                                                                                                                                |               |               | DCL                | 1.25 x initial limit         |           |       |           |            |       |
|                              |                                                                                                                                                                                                                                                                                                |               |               | ΔC/C               | within ±10% of initial value |           |       |           |            |       |
|                              |                                                                                                                                                                                                                                                                                                |               |               | DF                 | initial limit                |           |       |           |            |       |
|                              |                                                                                                                                                                                                                                                                                                |               |               | ESR                | initial limit                |           |       |           |            |       |
| <b>Storage Life</b>          | 125°C, 0V, 2000h                                                                                                                                                                                                                                                                               |               |               | Visual examination | no visible damage            |           |       |           |            |       |
|                              |                                                                                                                                                                                                                                                                                                |               |               | DCL                | 1.25 x initial limit         |           |       |           |            |       |
|                              |                                                                                                                                                                                                                                                                                                |               |               | ΔC/C               | within ±10% of initial value |           |       |           |            |       |
|                              |                                                                                                                                                                                                                                                                                                |               |               | DF                 | initial limit                |           |       |           |            |       |
|                              |                                                                                                                                                                                                                                                                                                |               |               | ESR                | initial limit                |           |       |           |            |       |
| <b>Humidity</b>              | Determine after storage without applied voltage at 65±2°C and 95±2% relative humidity for 500 hours and then recovery 1-2 hours at room temperature.                                                                                                                                           |               |               | Visual examination | no visible damage            |           |       |           |            |       |
|                              |                                                                                                                                                                                                                                                                                                |               |               | DCL                | 1.5 x initial limit          |           |       |           |            |       |
|                              |                                                                                                                                                                                                                                                                                                |               |               | ΔC/C               | within ±10% of initial value |           |       |           |            |       |
|                              |                                                                                                                                                                                                                                                                                                |               |               | DF                 | 1.2 x initial limit          |           |       |           |            |       |
|                              |                                                                                                                                                                                                                                                                                                |               |               | ESR                | initial limit                |           |       |           |            |       |
| <b>Biased Humidity</b>       | Determine after leaving for 1000 hours at 85±2°C, 85% relative humidity and rated voltage and then recovery 1-2 hours at room temperature.                                                                                                                                                     |               |               | Visual examination | no visible damage            |           |       |           |            |       |
|                              |                                                                                                                                                                                                                                                                                                |               |               | DCL                | 2 x initial limit            |           |       |           |            |       |
|                              |                                                                                                                                                                                                                                                                                                |               |               | ΔC/C               | within ±10% of initial value |           |       |           |            |       |
|                              |                                                                                                                                                                                                                                                                                                |               |               | DF                 | 1.2 x initial limit          |           |       |           |            |       |
|                              |                                                                                                                                                                                                                                                                                                |               |               | ESR                | initial limit                |           |       |           |            |       |
| <b>Temperature Stability</b> | Step                                                                                                                                                                                                                                                                                           | Temperature°C | Duration(min) |                    | +20°C                        | -55°C     | +20°C | +85°C     | +125°C     | +20°C |
|                              | 1                                                                                                                                                                                                                                                                                              | +20±2         | 15            | DCL                | IL*                          | n/a       | IL*   | 10 x IL*  | 12.5 x IL* | IL*   |
|                              | 2                                                                                                                                                                                                                                                                                              | -55+0/-3      | 15            | ΔC/C               | n/a                          | +0/-10%   | ±5%   | +10/-0%   | +12/-0%    | ±5%   |
|                              | 3                                                                                                                                                                                                                                                                                              | +20±2         | 15            | DF                 | IL*                          | 1.5 x IL* | IL*   | 1.5 x IL* | 2 x IL*    | IL*   |
|                              | 4                                                                                                                                                                                                                                                                                              | +85+3/-0      | 15            | ESR                | IL*                          | 2 x IL*   | IL*   | IL*       | IL*        | IL*   |
|                              | 5                                                                                                                                                                                                                                                                                              | +125+3/-0     | 15            |                    |                              |           |       |           |            |       |
|                              | 6                                                                                                                                                                                                                                                                                              | +20±2         | 15            |                    |                              |           |       |           |            |       |
| <b>Surge Voltage</b>         | Test temperature: 125°C±3/0°C<br>Test voltage: Category voltage at 125°C<br>Surge voltage: 1.3 x category voltage at 125°C<br>Series protection resistance 1000±100Ω<br>Discharge resistance: 1000Ω<br>Number of cycles: 1000x<br>Cycle duration: 6 min; 30 sec charge, 5 min 30 sec discharge |               |               | Visual examination | no visible damage            |           |       |           |            |       |
|                              |                                                                                                                                                                                                                                                                                                |               |               | DCL                | initial limit                |           |       |           |            |       |
|                              |                                                                                                                                                                                                                                                                                                |               |               | ΔC/C               | within ±5% of initial value  |           |       |           |            |       |
|                              |                                                                                                                                                                                                                                                                                                |               |               | DF                 | initial limit                |           |       |           |            |       |
|                              |                                                                                                                                                                                                                                                                                                |               |               | ESR                | initial limit                |           |       |           |            |       |

\*Initial Limit