

# AVX Tantalum Chip Capacitors



## AVX HIGH TEMPERATURE AND PROFESSIONAL TANTALUM CHIPCAPACITORS

**DIMENSIONS: mm (in.)**

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|----------------------|----------|--------------|-----------------------------|-----------------------------|---------------------------------|-----------------------------|-------------|
| Code                 | EIA Code | L±0.2(0.008) | W+0.2(0.008)<br>-0.1(0.008) | H+0.2(0.008)<br>-0.1(0.004) | W <sub>1</sub> ± 0.2<br>(0.008) | A+0.3(0.012)<br>-0.2(0.008) | S Min.      |
| A                    | 3216     | 3.2 (0.126)  | 1.6 (0.063)                 | 1.6 (0.063)                 | 1.2 (0.031)                     | 0.8 (0.031)                 | 1.1 (0.043) |
| B                    | 3528     | 3.5 (0.138)  | 2.8 (0.110)                 | 1.9 (0.075)                 | 2.2 (0.087)                     | 0.8 (0.031)                 | 1.4 (0.055) |
| C                    | 6032     | 6.0 (0.236)  | 3.2 (0.126)                 | 2.6 (0.102)                 | 2.2 (0.087)                     | 1.3 (0.051)                 | 2.9 (0.114) |
| D                    | 7343     | 7.3 (0.287)  | 4.3 (0.169)                 | 2.9 (0.114)                 | 2.4 (0.094)                     | 1.3 (0.051)                 | 4.4 (0.173) |
| E                    | 7343     | 7.3 (0.287)  | 4.3 (0.169)                 | 4.1 (0.162)                 | 2.4 (0.094)                     | 1.3 (0.051)                 | 4.4 (0.173) |
| V                    | 7361     | 7.3 (0.287)  | 6.1 (0.24)                  | 3.45±0.30<br>(0.136±0.012)  | 3.1 (0.12)                      | 1.4 (0.055)                 | 4.4 (0.173) |

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

| MOUSER STOCK NO.     | AVX Part Number  | Value (µF) | Volts | Case Size | ESR Max.Ω@ 100kHz | Price Each |       | Tape and Reel |                 |
|----------------------|------------------|------------|-------|-----------|-------------------|------------|-------|---------------|-----------------|
|                      |                  |            |       |           |                   | 1          | 100   | Qty.          | Price Per Piece |
| <b>THJ Series</b>    |                  |            |       |           |                   |            |       |               |                 |
| 581-THJA475K006R     | THJA475K006RJN   | 4.7        | 6.3   | A         | 6                 | .50        | .38   | 2000          | .17             |
| 581-THJA106K006R     | THJA106K006RJN   | 10         | 6.3   | A         | 2.2               | .60        | .46   | 2000          | .203            |
| 581-THJB226K006R     | THJB226K006RJN   | 22         | 6.3   | B         | 2.5               | .57        | .50   | 2000          | .25             |
| 581-THJB336K006R     | THJB336K006RJN   | 33         | 6.3   | B         | 1.7               | .78        | .64   | 2000          | .41             |
| 581-THJC476K006R     | THJC476K006RJN   | 47         | 6.3   | C         | 1.6               | 1.25       | .95   | 2000          | .42             |
| 581-THJC686K006R     | THJC686K006RJN   | 68         | 6.3   | C         | 1.5               | 1.40       | 1.03  | 500           | .51             |
| 581-THJD107K006R     | THJD107K006RJN   | 100        | 6.3   | D         | .4                | 2.40       | 1.82  | 500           | .87             |
| 581-THJD157K006R     | THJD157K006RJN   | 150        | 6.3   | D         | .9                | 2.72       | 2.07  | 500           | .99             |
| 581-THJA335K010R     | THJA335K010RJN   | 3.3        | 10    | A         | 5.5               | .50        | .38   | 2000          | .42             |
| 581-THJA685K010R     | THJA685K010RJN   | 6.8        | 10    | A         | 2.6               | .55        | .43   | 2000          | .188            |
| 581-THJB106K010R     | THJB106K010RJN   | 10         | 10    | B         | 1.8               | 1.30       | .99   | 2000          | .44             |
| 581-THJB156K010R     | THJB156K010RJN   | 15         | 10    | B         | 1.5               | .79        | .68   | 2000          | .44             |
| 581-THJB226K010R     | THJB226K010RJN   | 22         | 10    | B         | 2.4               | 1.23       | .95   | 2000          | .42             |
| 581-THJC336K010R     | THJC336K010RJN   | 33         | 10    | C         | 1.6               | 1.25       | .95   | 2000          | .42             |
| 581-THJD686K010R     | THJD686K010RJN   | 68         | 10    | D         | .4                | 2.40       | 1.82  | 500           | .87             |
| 581-THJD107K010R     | THJD107K010RJN   | 100        | 10    | D         | .4                | 2.35       | 1.78  | 2000          | .79             |
| 581-THJE227K010AJH   | THJE227K010AJH   | 220        | 10    | E         | .25               | 74.20      | 51.94 | 400           | 47.30           |
| 581-THJE227K010R     | THJE227K010R     | 220        | 10    | E         | .5                | 11.40      | 8.02  | 400           | 7.30            |
| 581-THJA225K016R     | THJA225K016R     | 2.2        | 16    | A         | 6.5               | .50        | .38   | 500           | .30             |
| 581-THJB475K016R     | THJB475K016R     | 4.7        | 16    | B         | 3.5               | .78        | .68   | 2000          | .44             |
| 581-THJA685K016R     | THJA685K016R     | 6.8        | 16    | A         | 2.5               | .50        | .43   | 2000          | .217            |
| 581-THJB685K016R     | THJB685K016R     | 6.8        | 16    | B         | 2.5               | .78        | .68   | 2000          | .44             |
| 581-THJB106K016R     | THJB106K016R     | 10         | 16    | B         | 2.8               | .79        | .68   | 2000          | .44             |
| 581-THJC226K016R     | THJC226K016R     | 22         | 16    | C         | 1.6               | 1.25       | .95   | 2000          | .42             |
| 581-THJC336K016R     | THJC336K016R     | 33         | 16    | C         | .6                | 1.29       | 1.13  | 2000          | .50             |
| 581-THJC476K016R     | THJC476K016R     | 47         | 16    | C         | .9                | 1.45       | 1.07  | 500           | .53             |
| 581-THJD476K016R     | THJD476K016R     | 47         | 16    | D         | .9                | 1.15       | .87   | 500           | .69             |
| 581-THJD686K016R     | THJD686K016R     | 68         | 16    | D         | .9                | 2.30       | 1.74  | 500           | .83             |
| 581-THJE107K016AJH   | THJE107K016AJH   | 100        | 16    | E         | .25               | 70.49      | 51.94 | 400           | 47.30           |
| 581-THJE107K016R     | THJE107K016R     | 100        | 16    | E         | .4                | 11.40      | 8.02  | 400           | 7.30            |
| 581-THJA155K020R     | THJA155K020R     | 1.5        | 20    | A         | 1.7               | .50        | .38   | 2000          | .17             |
| 581-THJB335K020R     | THJB335K020R     | 3.3        | 20    | B         | 3                 | .78        | .68   | 2000          | .44             |
| 581-THJC156K020R     | THJC156K020R     | 15         | 20    | C         | 1.7               | 1.28       | .97   | 2000          | .51             |
| 581-THJD336K020R     | THJD336K020R     | 33         | 20    | D         | .9                | 2.19       | 1.59  | 500           | .85             |
| 581-THJD336M020R     | THJD336M020R     | 33         | 20    | D         | .9                | 2.19       | 1.59  | 500           | .85             |
| 581-THJA474K025R     | THJA474K025R     | 47         | 25    | A         | 1.4               | 1.32       | 1.00  | 2000          | .37             |
| 581-THJA684K025R     | THJA684K025R     | 68         | 25    | A         | 1.0               | 1.35       | 1.03  | 2000          | .37             |
| 581-THJB225K025R     | THJB225K025R     | 2.2        | 25    | B         | 4.5               | .96        | .83   | 2000          | .37             |
| 581-THJC685K025R     | THJC685K025R     | 6.8        | 25    | C         | 2                 | 1.58       | 1.23  | 2000          | .90             |
| 581-THJC106K025R     | THJC106K025R     | 10         | 25    | C         | 1.8               | 1.25       | .95   | 2000          | .42             |
| 581-THJD226K025R     | THJD226K025R     | 22         | 25    | D         | .9                | 3.64       | 3.06  | 2000          | 1.41            |
| 581-THJD336K025R     | THJD336K025R     | 33         | 25    | D         | .5                | 3.38       | 2.48  | 2000          | 1.14            |
| 581-THJA104K035R     | THJA104K035R     | 1          | 35    | A         | 24                | 1.15       | .87   | 500           | .69             |
| 581-THJA154K035R     | THJA154K035R     | .15        | 35    | A         | 21                | 1.30       | .99   | 2000          | .39             |
| 581-THJA224K035R     | THJA224K035R     | .22        | 35    | A         | 18                | 1.15       | .87   | 2000          | .39             |
| 581-THJB474K035R     | THJB474K035R     | .47        | 35    | B         | 10                | 1.95       | 1.48  | 2000          | .66             |
| 581-THJB684K035R     | THJB684K035R     | .68        | 35    | B         | 8                 | 2.00       | 1.52  | 2000          | .68             |
| 581-THJB105K035R     | THJB105K035R     | 1          | 35    | B         | 6.5               | .78        | .68   | 2000          | .44             |
| 581-THJC155K035R     | THJC155K035R     | 1.5        | 35    | C         | 4.5               | 1.16       | .86   | 500           | .42             |
| 581-THJC225K035R     | THJC225K035R     | 2.2        | 35    | C         | 3.5               | 1.20       | .89   | 500           | .44             |
| 581-THJC475K035R     | THJC475K035R     | 4.7        | 35    | C         | 2.2               | 1.26       | .82   | 2000          | .62             |
| 581-THJD685K035R     | THJD685K035R     | 6.8        | 35    | D         | 1.3               | 1.55       | 1.24  | 2000          | .566            |
| 581-THJD106K035R     | THJD106K035R     | 10         | 35    | D         | 1                 | 2.01       | 1.52  | 500           | .73             |
| 581-THJD156K035R     | THJD156K035R     | 15         | 35    | D         | .9                | 2.30       | 1.74  | 2000          | .78             |
| 581-THJD226K035R     | THJD226K035R     | 22         | 35    | D         | .9                | 3.25       | 2.47  | 2000          | 1.32            |
| 581-THJE336K035R     | THJE336K035R     | 33         | 35    | E         | .5                | 8.50       | 6.46  | 400           | 3.09            |
| 581-THJD335K050R     | THJD335K050R     | 3.3        | 50    | D         | 1.1               | 4.54       | 3.65  | 500           | 1.82            |
| 581-THJD475K050R     | THJD475K050R     | 4.7        | 50    | D         | .9                | 6.25       | 4.75  | 2000          | 2.12            |
| 581-THJD685K050R     | THJD685K050R     | 6.8        | 50    | D         | .7                | 4.54       | 3.65  | 500           | 1.82            |
| 581-THJD106K050R     | THJD106K050R     | 10         | 50    | D         | .7                | 6.30       | 4.78  | 500           | 2.29            |
| 581-THJE106K050R     | THJE106K050R     | 10         | 50    | E         | .7                | 10.50      | 7.98  | 400           | 5.24            |
| <b>TRJ Series</b>    |                  |            |       |           |                   |            |       |               |                 |
| 581-TRJE337M006R0150 | TRJE337M006R0150 | 330        | 6.3   | E         | 150               | 7.39       | 4.33  | 400           | 3.60            |
| 581-TRJB685M016RRJ   | TRJB685M016RRJ   | 6.8        | 16    | B         | 2600              | .87        | .65   | 2000          | .29             |
| 581-TRJC226M016RRJ   | TRJC226M016RRJ   | 22         | 16    | C         | 700               | 1.14       | .648  | 500           | .47             |
| 581-TRJC106K020R0500 | TRJC106K020R0500 | 10         | 20    | C         | 500               | 1.24       | .703  | 500           | .509            |
| 581-TRJC106M020RRJ   | TRJC106M020RRJ   | 10         | 20    | C         | 2200              | 1.01       | .578  | 500           | .419            |
| 581-TRJD336M020RRJ   | TRJD336M020RRJ   | 33         | 20    | D         | 600               | 1.79       | 1.04  | 500           | .711            |
| 581-TRJE686K020R0200 | TRJE686K020R0200 | 68         | 20    | E         | 200               | 7.53       | 4.42  | 400           | 3.67            |
| 581-TRJE107M020R0150 | TRJE107M020R0150 | 100        | 20    | E         | 150               | 9.73       | 5.71  | 400           | 4.74            |
| 581-TRJB335M025RRJ   | TRJB335M025RRJ   | 3.3        | 25    | B         | 3700              | .87        | .65   | 2000          | .29             |
| 581-TRJC106K025RRJ   | TRJC106K025RRJ   | 10         | 25    | C         | 800               | 1.16       | .662  | 500           | .48             |
| 581-TRJD476K025R0250 | TRJD476K025R0250 | 47         | 25    | D         | 250               | 5.41       | 4.36  | 500           | 2.44            |
| 581-TRJB105K035RRJ   | TRJB105K035RRJ   | 1          | 35    | B         | 2000              | .87        | .65   | 2000          | .29             |
| 581-TRJC106K035R0600 | TRJC106K035R0600 | 10         | 35    | C         | 600               | 1.36       | 1.19  | 500           | 1.10            |
| 581-TRJD106K035RRJ   | TRJD106K035RRJ   | 10         | 35    | D         | 800               | 1.83       | 1.06  | 500           | .726            |
| 581-TRJD685M050RRJ   | TRJD685M050RRJ   | 6.8        | 50    | D         | 700               | 5.63       | 3.28  | 500           | 2.23            |



### THJ Series: High Temperature

- Features:**
- Twice improved reliability
  - 175°C @ 0.5V<sub>R</sub> continuous operation
  - CV range: 0.1-220µF/6.3-50V
  - Low ESR options on approval
  - High temperature automotive and industry applications

### Specifications:

- Technical data: All technical data relate to an ambient temperature of +25°C
- Capacitance range: 0.1µF to 150µF
- Temperature range: -55°C to 175°C voltage derating
- Reliability: 0.5% per 1000 hours at 85°C, V<sub>R</sub> with 0.1Ω/V series impedance, 60% confidence level, 3.5 fits at 40°C, 0.5V<sub>R</sub>

### TRJ Series: Professional



- Features:**
- Twice improved reliability
  - DCL reduced by 25% to 0.0075CV
  - Robust against higher thermo-mechanical stresses during assembly process
  - CV range: 0.1-470µF/6.3-50V
  - 114 low ESR parts released
  - Automotive, medical, aerospace, military and other high-end applications

### Specifications:

- Technical data: All technical data relate to an ambient temperature of +25°C
- Capacitance range: 0.1 µF to 470µF
- Leakage current DCL: 0.0075CV
- Temperature range: -55°C to +125°C
- Reliability: 0.5% per 1000 hours at 85°C, V<sub>R</sub> with 0.1Ω/V series impedance 60% confidence level



Tantalum Caps, SMD AVX