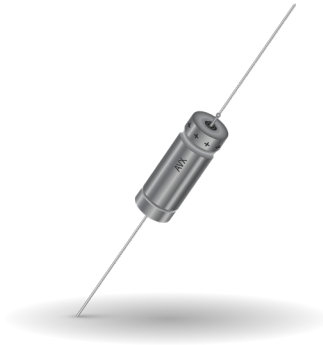


TWC SERIES

COTS-Plus – Conventional Wet Tantalum

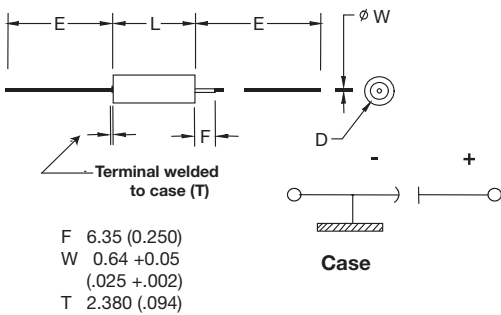


The TWC series represents a COTS-Plus version of conventional wet electrolytic tantalum capacitors. This data sheet incorporates all ratings available in MIL-PRF-39006 /22 /25 /30 and /31. Contact the factory about cap and voltage design possibilities beyond those contained in this datasheet.

This design includes a welded tantalum can and header assembly that provides a hermetic seal to withstand harsh environments and includes selected Group A testing from MIL-PRF-39006.

For military qualified versions please refer to the MIL-PRF-39006 datasheet located on the AVX website.

OUTLINE DIMENSIONS



CASE DIMENSIONS: millimeters (inches)

| DLA Case Size | AVX Case Size | L +0.79 (0.031) -0.41 (0.016) | D Basic Case ±0.41 (0.016) | D Insulated Case Max | E ±6.35 (0.250) |
|---------------|---------------|-------------------------------------|----------------------------------|----------------------------|--------------------|
| T1 | A | 11.51 (0.453) | 4.78 (0.188) | 5.56 (0.219) | 38.10 (1.500) |
| T2 | B | 16.28 (0.641) | 7.14 (0.281) | 7.92 (0.312) | 57.15 (2.250) |
| T3 | D | 19.46 (0.766) | 9.52 (0.375) | 10.31 (0.406) | 57.15 (2.250) |
| T4 | E | 26.97 (1.062) | 9.52 (0.375) | 10.31 (0.406) | 57.15 (2.250) |

VOLTAGE RATINGS (Operating Temperature -55°C to 125°C)

| Voltage (DC) | | 6 | 8 | 10 | 15 | 25 | 30 | 50 | 60 | 75 | 100 | 125 |
|------------------------------------|-------|-----|-----|------|------|------|------|------|----|------|-----|-----|
| Rated Voltage: (V _r) | 85°C | 6 | 8 | 10 | 15 | 25 | 30 | 50 | 60 | 75 | 100 | 125 |
| Derated Voltage: (V _d) | 125°C | 4 | 5 | 6 | 10 | 15 | 20 | 30 | 40 | 50 | 65 | 85 |
| Surge Voltage: (V _s) | 85°C | 6.9 | 9.2 | 11.5 | 17.3 | 28.8 | 34.5 | 57.5 | 69 | 86.3 | 115 | 144 |

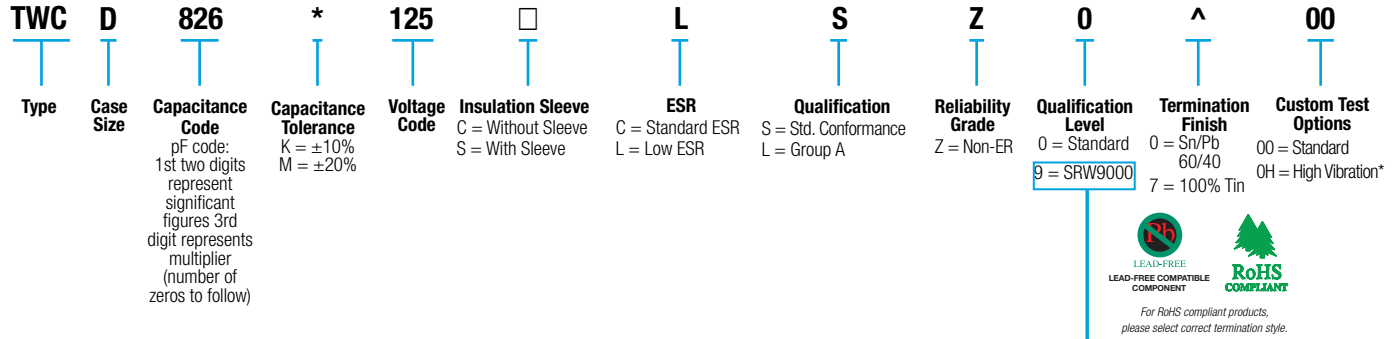
TWC SERIES

COTS-Plus – Conventional Wet Tantalum



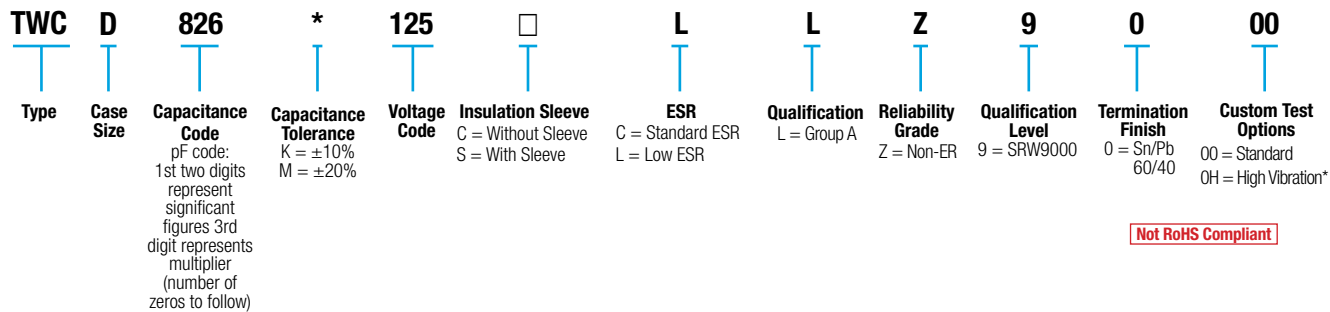
HOW TO ORDER

AVX PART NUMBER:



*High vibration qualified parts are currently under development. Please contact the factory for additional details and availability.

SPACE LEVEL OPTIONS TO SRW9000*:



*Check with factory for availability and testing details.

RIPPLE CURRENT MULTIPLIERS vs. Frequency, temperature and applied voltage^{1/2/}

| Frequency of Applied Ripple Current | | 120Hz | | | | 800Hz | | | | 1kHz | | | |
|-------------------------------------|------|-------|------|------|------|-------|------|------|------|------|------|------|------|
| | | ≤55 | 85 | 105 | 125 | ≤55 | 85 | 105 | 125 | ≤55 | 85 | 105 | 125 |
| Ambient Still Air Temperature (°C) | 100% | 0.60 | 0.39 | – | – | 0.71 | 0.43 | – | – | 0.72 | 0.45 | – | – |
| | 90% | 0.60 | 0.46 | – | – | 0.71 | 0.55 | – | – | 0.72 | 0.55 | – | – |
| | 80% | 0.60 | 0.52 | 0.35 | – | 0.71 | 0.62 | 0.42 | – | 0.72 | 0.62 | 0.42 | – |
| | 70% | 0.60 | 0.58 | 0.44 | – | 0.71 | 0.69 | 0.52 | – | 0.72 | 0.70 | 0.52 | – |
| Voltage 66-2/3% | | 0.60 | 0.60 | 0.46 | 0.27 | 0.71 | 0.71 | 0.55 | 0.32 | 0.72 | 0.72 | 0.55 | 0.32 |

| Frequency of Applied Ripple Current | | 10kHz | | | | 40kHz | | | | 100kHz | | | |
|-------------------------------------|------|-------|------|------|------|-------|------|------|------|--------|------|------|------|
| | | ≤55 | 85 | 105 | 125 | ≤55 | 85 | 105 | 125 | ≤55 | 85 | 105 | 125 |
| Ambient Still Air Temperature (°C) | 100% | 0.88 | 0.55 | – | – | 1.00 | 0.63 | – | – | 1.10 | 0.69 | – | – |
| | 90% | 0.88 | 0.67 | – | – | 1.00 | 0.77 | – | – | 1.10 | 0.85 | – | – |
| | 80% | 0.88 | 0.76 | 0.52 | – | 1.00 | 0.87 | 0.59 | – | 1.10 | 0.96 | 0.65 | – |
| | 70% | 0.88 | 0.85 | 0.64 | – | 1.00 | 0.97 | 0.73 | – | 1.10 | 1.07 | 0.80 | – |
| Voltage 66-2/3% | | 0.88 | 0.88 | 0.68 | 0.40 | 1.00 | 1.00 | 0.77 | 0.45 | 1.10 | 1.10 | 0.85 | 0.50 |

1/ At 125°C the rated voltage of the capacitors decreases to 66 2/3 of the 85°C rated voltage.
 2/ The peak of the applied ac ripple voltage plus the applied dc voltage must not exceed the dc voltage rating of the capacitors.

TWC SERIES

COTS-Plus – Conventional Wet Tantalum



STANDARD RATINGS & PART NUMBER REFERENCE

| AVX Part Number | Cap (µF) 25°C at 120Hz | DC Rated Voltage (V) at 85°C | DC Leakage (µA) | | DF (Max) | ESR Max (Ohms) at 120Hz | Impedance max (Ohms) -55°C at 120Hz | Maximum Capacitance Change (%) | | | AC Ripple (mA rms) 85°C at 40kHz | Case Size | |
|---------------------|------------------------------|------------------------------------|-----------------|-------------------|-------------|-------------------------------|---|-----------------------------------|-------|--------|--|-----------|-----|
| | | | +25°C | +85°C & +125°C | | | | -55°C | +85°C | +125°C | | Standard | AVX |
| TWCA306*006□CSZ0^00 | 30 | 6 | 1 | 2 | 9 | 3.98 | 100 | -40 | 10.5 | 12 | 820 | T1 | A |
| TWCA306*006□LSZ0^00 | | | | | 4.5 | 1.99 | | | | | | | |
| TWCA686*006□CSZ0^00 | 68 | 6 | 1 | 2 | 15 | 3.16 | 60 | -40 | 14 | 16 | 960 | T1 | A |
| TWCA686*006□LSZ0^00 | | | | | 7.5 | 1.58 | | | | | | | |
| TWCB147*006□CSZ0^00 | 140 | 6 | 1 | 3 | 21 | 1.99 | 40 | -40 | 14 | 16 | 1,200 | T2 | B |
| TWCB147*006□LSZ0^00 | | | | | 10.5 | 0.99 | | | | | | | |
| TWCB277*006□CSZ0^00 | 270 | 6 | 1 | 6.5 | 45 | 2.21 | 25 | -44 | 17.5 | 20 | 1,375 | T2 | B |
| TWCB277*006□LSZ0^00 | | | | | 22.5 | 1.11 | | | | | | | |
| TWCD337*006□CSZ0^00 | 330 | 6 | 2 | 7.9 | 36 | 1.45 | 20 | -44 | 14 | 16 | 1,800 | T3 | D |
| TWCD337*006□LSZ0^00 | | | | | 18 | 0.73 | | | | | | | |
| TWCD567*006□CSZ0^00 | 560 | 6 | 2 | 13 | 55 | 1.3 | 25 | -64 | 17.5 | 20 | 1,900 | T3 | D |
| TWCD567*006□LSZ0^00 | | | | | 27.5 | 0.65 | | | | | | | |
| TWCE128*006□CSZ0^00 | 1,200 | 6 | 3 | 14 | 90 | 1 | 20 | -80 | 25 | 25 | 2,265 | T4 | E |
| TWCE128*006□LSZ0^00 | | | | | 45 | 0.5 | | | | | | | |
| TWCA256*008□CSZ0^00 | 25 | 8 | 1 | 2 | 7.5 | 3.98 | 100 | -40 | 10.5 | 12 | 820 | T1 | A |
| TWCA256*008□LSZ0^00 | | | | | 3.75 | 1.99 | | | | | | | |
| TWCA566*008□CSZ0^00 | 56 | 8 | 1 | 2 | 14 | 3.32 | 59 | -40 | 14 | 16 | 900 | T1 | A |
| TWCA566*008□LSZ0^00 | | | | | 7 | 1.66 | | | | | | | |
| TWCB127*008□CSZ0^00 | 120 | 8 | 1 | 2 | 20 | 2.21 | 50 | -44 | 17.5 | 20 | 1,220 | T2 | B |
| TWCB127*008□LSZ0^00 | | | | | 10 | 1.11 | | | | | | | |
| TWCB227*008□CSZ0^00 | 220 | 8 | 1 | 7 | 37 | 2.23 | 30 | -44 | 17.5 | 20 | 1,370 | T2 | B |
| TWCB227*008□LSZ0^00 | | | | | 18.5 | 1.12 | | | | | | | |
| TWCD297*008□CSZ0^00 | 290 | 8 | 2 | 6 | 34 | 1.56 | 25 | -64 | 17.5 | 20 | 1,770 | T3 | D |
| TWCD297*008□LSZ0^00 | | | | | 17 | 0.78 | | | | | | | |
| TWCD437*008□CSZ0^00 | 430 | 8 | 2 | 14 | 46 | 1.42 | 25 | -64 | 17.5 | 20 | 1,825 | T3 | D |
| TWCD437*008□LSZ0^00 | | | | | 23 | 0.71 | | | | | | | |
| TWCE857*008□CSZ0^00 | 850 | 8 | 4 | 16 | 60 | 0.94 | 22 | -80 | 25 | 25 | 2,330 | T4 | E |
| TWCE857*008□LSZ0^00 | | | | | 30 | 0.47 | | | | | | | |
| TWCA206*010□CSZ0^00 | 20 | 10 | 1 | 2 | 6 | 3.98 | 175 | -32 | 10.5 | 12 | 820 | T1 | A |
| TWCA206*010□LSZ0^00 | | | | | 3 | 1.99 | | | | | | | |
| TWCA476*010□CSZ0^00 | 47 | 10 | 1 | 2 | 13 | 3.67 | 100 | -36 | 14 | 16 | 855 | T1 | A |
| TWCA476*010□LSZ0^00 | | | | | 6.5 | 1.84 | | | | | | | |
| TWCB107*010□CSZ0^00 | 100 | 10 | 1 | 4 | 15 | 1.99 | 60 | -36 | 14 | 16 | 1,200 | T2 | B |
| TWCB107*010□LSZ0^00 | | | | | 7.5 | 0.99 | | | | | | | |
| TWCB187*010□CSZ0^00 | 180 | 10 | 1 | 7 | 30 | 2.21 | 40 | -36 | 14 | 16 | 1,365 | T2 | B |
| TWCB187*010□LSZ0^00 | | | | | 15 | 1.11 | | | | | | | |
| TWCD257*010□CSZ0^00 | 250 | 10 | 2 | 10 | 30 | 1.59 | 30 | -40 | 14 | 16 | 1,720 | T3 | D |
| TWCD257*010□LSZ0^00 | | | | | 15 | 0.8 | | | | | | | |
| TWCD397*010□CSZ0^00 | 390 | 10 | 2 | 16 | 44 | 1.5 | 25 | -64 | 17.5 | 20 | 1,800 | T3 | D |
| TWCD397*010□LSZ0^00 | | | | | 22 | 0.75 | | | | | | | |
| TWCE757*010□CSZ0^00 | 750 | 10 | 4 | 16 | 50 | 0.88 | 23 | -80 | 25 | 25 | 2,360 | T4 | E |
| TWCE757*010□LSZ0^00 | | | | | 25 | 0.44 | | | | | | | |
| TWCA156*015□CSZ0^00 | 15 | 15 | 1 | 2 | 5 | 4.42 | 155 | -24 | 10.5 | 12 | 780 | T1 | A |
| TWCA156*015□LSZ0^00 | | | | | 2.5 | 2.21 | | | | | | | |
| TWCA336*015□CSZ0^00 | 33 | 15 | 1 | 2 | 10 | 4.02 | 90 | -28 | 14 | 16 | 820 | T1 | A |
| TWCA336*015□LSZ0^00 | | | | | 5 | 2.01 | | | | | | | |
| TWCB706*015□CSZ0^00 | 70 | 15 | 1 | 4 | 13 | 2.46 | 75 | -28 | 14 | 16 | 1,150 | T2 | B |
| TWCB706*015□LSZ0^00 | | | | | 6.5 | 1.23 | | | | | | | |
| TWCB127*015□CSZ0^00 | 120 | 15 | 1 | 7 | 18 | 1.99 | 50 | -28 | 17.5 | 20 | 1,450 | T2 | B |
| TWCB127*015□LSZ0^00 | | | | | 9 | 0.99 | | | | | | | |
| TWCD177*015□CSZ0^00 | 170 | 15 | 2 | 10 | 25 | 1.95 | 35 | -32 | 14 | 16 | 1,480 | T3 | D |
| TWCD177*015□LSZ0^00 | | | | | 12.5 | 0.98 | | | | | | | |
| TWCD277*015□CSZ0^00 | 270 | 15 | 2 | 16 | 32 | 1.57 | 30 | -56 | 17.5 | 20 | 1,740 | T3 | D |
| TWCD277*015□LSZ0^00 | | | | | 16 | 0.79 | | | | | | | |
| TWCE547*015□CSZ0^00 | 540 | 15 | 6 | 24 | 40 | 0.98 | 23 | -80 | 25 | 25 | 2,330 | T4 | E |
| TWCE547*015□LSZ0^00 | | | | | 20 | 0.49 | | | | | | | |
| TWCA106*025□CSZ0^00 | 10 | 25 | 1 | 2 | 4 | 5.31 | 220 | -16 | 8 | 9 | 715 | T1 | A |
| TWCA106*025□LSZ0^00 | | | | | 2 | 2.66 | | | | | | | |
| TWCA226*025□CSZ0^00 | 22 | 25 | 1 | 2 | 6.6 | 3.98 | 140 | -20 | 10.5 | 12 | 825 | T1 | A |
| TWCA226*025□LSZ0^00 | | | | | 3.3 | 1.99 | | | | | | | |
| TWCB506*025□CSZ0^00 | 50 | 25 | 1 | 2 | 11 | 2.92 | 70 | -28 | 13 | 15 | 1,130 | T2 | B |
| TWCB506*025□LSZ0^00 | | | | | 5.5 | 1.46 | | | | | | | |

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

NOTE: AVX reserves the rights to supply higher voltage rating in the same case size, to the same reliability standards.

TWC SERIES

COTS-Plus – Conventional Wet Tantalum



STANDARD RATINGS & PART NUMBER REFERENCE

| AVX Part Number | Cap (µF) 25°C at 120Hz | DC Rated Voltage (V) at 85°C | DC Leakage (µA) | | DF (Max) | ESR Max (Ohms) at 120Hz | Impedance max (Ohms) -55°C at 120Hz | Maximum Capacitance Change (%) | | | AC Ripple (mA rms) 85°C at 40kHz | Case Size | |
|---------------------|------------------------------|------------------------------------|-----------------|-------------------|-------------|-------------------------------|---|-----------------------------------|-------|--------|--|-----------|-----|
| | | | +25°C | +85°C & +125°C | | | | -55°C | +85°C | +125°C | | Standard | AVX |
| TWCB107*025□CSZ0^00 | 100 | 25 | 1 | 10 | 15 | 1.99 | 50 | -28 | 13 | 15 | 1,435 | T2 | B |
| TWCB107*025□LSZ0^00 | | | | | 7.5 | 0.99 | | | | | | | |
| TWCD127*025□CSZ0^00 | 120 | 25 | 2 | 6 | 21 | 2.32 | 38 | -32 | 13 | 15 | 1,450 | T3 | D |
| TWCD127*025□LSZ0^00 | | | | | 10.5 | 1.16 | | | | | | | |
| TWCD187*025□CSZ0^00 | 180 | 25 | 2 | 18 | 26 | 1.92 | 32 | -48 | 13 | 15 | 1,525 | T3 | D |
| TWCD187*025□LSZ0^00 | | | | | 13 | 0.96 | | | | | | | |
| TWCE357*025□CSZ0^00 | 350 | 25 | 7 | 28 | 35 | 1.33 | 24 | -70 | 25 | 25 | 1,970 | T4 | E |
| TWCE357*025□LSZ0^00 | | | | | 17.5 | 0.67 | | | | | | | |
| TWCA805*030□CSZ0^00 | 8 | 30 | 1 | 2 | 4 | 6.64 | 275 | -16 | 8 | 12 | 640 | T1 | A |
| TWCA805*030□LSZ0^00 | | | | | 2 | 3.32 | | | | | | | |
| TWCA156*030□CSZ0^00 | 15 | 30 | 1 | 2 | 5 | 4.42 | 175 | -20 | 10.5 | 12 | 780 | T1 | A |
| TWCA156*030□LSZ0^00 | | | | | 2.5 | 2.21 | | | | | | | |
| TWCB406*030□CSZ0^00 | 40 | 30 | 1 | 5 | 10 | 3.32 | 65 | -24 | 10.5 | 12 | 1,120 | T2 | B |
| TWCB406*030□LSZ0^00 | | | | | 5 | 1.66 | | | | | | | |
| TWCB686*030□CSZ0^00 | 68 | 30 | 1 | 8 | 13 | 2.54 | 60 | -24 | 13 | 15 | 1,285 | T2 | B |
| TWCB686*030□LSZ0^00 | | | | | 6.5 | 1.27 | | | | | | | |
| TWCD107*030□CSZ0^00 | 100 | 30 | 2 | 12 | 17 | 2.26 | 40 | -28 | 10.5 | 12 | 1,450 | T3 | D |
| TWCD107*030□LSZ0^00 | | | | | 8.5 | 1.13 | | | | | | | |
| TWCD157*030□CSZ0^00 | 150 | 30 | 2 | 18 | 23 | 2.03 | 35 | -48 | 13 | 15 | 1,525 | T3 | D |
| TWCD157*030□LSZ0^00 | | | | | 11.5 | 1.02 | | | | | | | |
| TWCE307*030□CSZ0^00 | 300 | 30 | 8 | 32 | 31 | 1.37 | 25 | -60 | 25 | 25 | 1,950 | T4 | E |
| TWCE307*030□LSZ0^00 | | | | | 15.5 | 0.69 | | | | | | | |
| TWCA505*050□CSZ0^00 | 5 | 50 | 1 | 2 | 3 | 7.96 | 400 | -16 | 5 | 6 | 580 | T1 | A |
| TWCA505*050□LSZ0^00 | | | | | 1.5 | 3.98 | | | | | | | |
| TWCA106*050□CSZ0^00 | 10 | 50 | 1 | 2 | 4 | 5.31 | 250 | -24 | 8 | 9 | 715 | T1 | A |
| TWCA106*050□LSZ0^00 | | | | | 2 | 2.66 | | | | | | | |
| TWCB256*050□CSZ0^00 | 25 | 50 | 1 | 5 | 8 | 4.25 | 95 | -20 | 10.5 | 12 | 1,005 | T2 | B |
| TWCB256*050□LSZ0^00 | | | | | 4 | 2.13 | | | | | | | |
| TWCB476*050□CSZ0^00 | 47 | 50 | 1 | 9 | 11 | 3.11 | 70 | -28 | 13 | 15 | 1,155 | T2 | B |
| TWCB476*050□LSZ0^00 | | | | | 5.5 | 1.56 | | | | | | | |
| TWCD606*050□CSZ0^00 | 60 | 50 | 2 | 12 | 12 | 2.65 | 45 | -16 | 10.5 | 12 | 1,335 | T3 | D |
| TWCD606*050□LSZ0^00 | | | | | 6 | 1.33 | | | | | | | |
| TWCD826*050□CSZ0^00 | 82 | 50 | 2 | 16 | 15 | 2.43 | 45 | -32 | 13 | 15 | 1,400 | T3 | D |
| TWCD826*050□LSZ0^00 | | | | | 7.5 | 1.22 | | | | | | | |
| TWCE167*050□CSZ0^00 | 160 | 50 | 8 | 32 | 17 | 1.41 | 27 | -50 | 25 | 25 | 1,900 | T4 | E |
| TWCE167*050□LSZ0^00 | | | | | 8.5 | 0.71 | | | | | | | |
| TWCA405*060□CSZ0^00 | 4 | 60 | 1 | 2 | 2.8 | 9.29 | 550 | -16 | 5 | 6 | 525 | T1 | A |
| TWCA405*060□LSZ0^00 | | | | | 1.4 | 4.65 | | | | | | | |
| TWCA825*060□CSZ0^00 | 8.2 | 60 | 1 | 2 | 4 | 6.47 | 275 | -24 | 8 | 9 | 625 | T1 | A |
| TWCA825*060□LSZ0^00 | | | | | 2 | 3.24 | | | | | | | |
| TWCB206*060□CSZ0^00 | 20 | 60 | 1 | 5 | 7 | 4.64 | 105 | -16 | 10.5 | 12 | 930 | T2 | B |
| TWCB206*060□LSZ0^00 | | | | | 3.5 | 2.32 | | | | | | | |
| TWCB396*060□CSZ0^00 | 39 | 60 | 1 | 9 | 10 | 3.4 | 90 | -28 | 10.5 | 12 | 1,110 | T2 | B |
| TWCB396*060□LSZ0^00 | | | | | 5 | 1.7 | | | | | | | |
| TWCD506*060□CSZ0^00 | 50 | 60 | 2 | 12 | 10 | 2.65 | 50 | -16 | 10.5 | 12 | 1,330 | T3 | D |
| TWCD506*060□LSZ0^00 | | | | | 5 | 1.33 | | | | | | | |
| TWCD686*060□CSZ0^00 | 68 | 60 | 2 | 16 | 13 | 2.54 | 50 | -32 | 10.5 | 12 | 1,365 | T3 | D |
| TWCD686*060□LSZ0^00 | | | | | 7 | 1.27 | | | | | | | |
| TWCE147*060□CSZ0^00 | 140 | 60 | 8 | 32 | 16 | 1.52 | 28 | -40 | 20 | 20 | 1,850 | T4 | E |
| TWCE147*060□LSZ0^00 | | | | | 8 | 0.76 | | | | | | | |
| TWCA355*075□CSZ0^00 | 3.5 | 75 | 1 | 2 | 2.5 | 9.48 | 650 | -16 | 5 | 6 | 525 | T1 | A |
| TWCA355*075□LSZ0^00 | | | | | 1.25 | 4.74 | | | | | | | |
| TWCA685*075□CSZ0^00 | 6.8 | 75 | 1 | 2 | 3.5 | 6.83 | 300 | -20 | 8 | 9 | 610 | T1 | A |
| TWCA685*075□LSZ0^00 | | | | | 1.75 | 3.42 | | | | | | | |
| TWCB156*075□CSZ0^00 | 15 | 75 | 1 | 5 | 6 | 5.31 | 150 | -16 | 8 | 9 | 890 | T2 | B |
| TWCB156*075□LSZ0^00 | | | | | 3 | 2.66 | | | | | | | |
| TWCB336*075□CSZ0^00 | 33 | 75 | 1 | 10 | 10 | 4.02 | 90 | -24 | 10.5 | 15 | 1,000 | T2 | B |
| TWCB336*075□LSZ0^00 | | | | | 5 | 2.01 | | | | | | | |
| TWCD406*075□CSZ0^00 | 40 | 75 | 2 | 12 | 9 | 2.99 | 60 | -16 | 10.5 | 12 | 1,250 | T3 | D |
| TWCD406*075□LSZ0^00 | | | | | 4.5 | 1.5 | | | | | | | |
| TWCD566*075□CSZ0^00 | 56 | 75 | 2 | 17 | 11 | 2.61 | 60 | -28 | 10.5 | 15 | 1,335 | T3 | D |
| TWCD566*075□LSZ0^00 | | | | | 5.5 | 1.31 | | | | | | | |

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

NOTE: AVX reserves the rights to supply higher voltage rating in the same case size, to the same reliability standards.

TWC SERIES

COTS-Plus – Conventional Wet Tantalum



STANDARD RATINGS & PART NUMBER REFERENCE

| AVX Part Number | Cap (µF) 25°C at 120Hz | DC Rated Voltage (V) at 85°C | DC Leakage (µA) | | DF (Max) | ESR Max (Ohms) at 120Hz | Impedance max (Ohms) -55°C at 120Hz | Maximum Capacitance Change (%) | | | AC Ripple (mA rms) 85°C at 40kHz | Case Size | |
|---------------------|------------------------------|------------------------------------|-----------------|-------------------|-------------|-------------------------------|---|-----------------------------------|-------|--------|--|-----------|-----|
| | | | +25°C | +85°C & +125°C | | | | -55°C | +85°C | +125°C | | Standard | AVX |
| TWCE117*075□CSZ0^00 | 110 | 75 | 9 | 36 | 12 | 1.45 | 29 | -35 | 20 | 20 | 1,850 | T4 | E |
| TWCE117*075□LSZ0^00 | | | | | 6 | 0.73 | | | | | | | |
| TWCA255*100□CSZ0^00 | 2.5 | 100 | 1 | 2 | 2 | 10.62 | 950 | -16 | 7 | 8 | 505 | T1 | A |
| TWCA255*100□LSZ0^00 | | | | | 1 | 5.31 | | | | | | | |
| TWCA475*100□CSZ0^00 | 4.7 | 100 | 1 | 2 | 3 | 8.47 | 500 | -16 | 7 | 8 | 565 | T1 | A |
| TWCA475*100□LSZ0^00 | | | | | 1.5 | 4.24 | | | | | | | |
| TWCB116*100□CSZ0^00 | 11 | 100 | 1 | 4 | 5 | 6.03 | 200 | -16 | 8 | 8 | 835 | T2 | B |
| TWCB116*100□LSZ0^00 | | | | | 2.5 | 3.02 | | | | | | | |
| TWCB226*100□CSZ0^00 | 22 | 100 | 1 | 9 | 7.5 | 4.52 | 100 | -16 | 8 | 8 | 965 | T2 | B |
| TWCB226*100□LSZ0^00 | | | | | 3.75 | 2.26 | | | | | | | |
| TWCD306*100□CSZ0^00 | 30 | 100 | 2 | 12 | 7 | 3.1 | 80 | -16 | 8 | 8 | 1,240 | T3 | D |
| TWCD306*100□LSZ0^00 | | | | | 3.5 | 1.56 | | | | | | | |
| TWCD436*100□CSZ0^00 | 43 | 100 | 2 | 17 | 8.5 | 2.62 | 70 | -20 | 8 | 8 | 1,335 | T3 | D |
| TWCD436*100□LSZ0^00 | | | | | 4.25 | 1.31 | | | | | | | |
| TWCE866*100□CSZ0^00 | 86 | 100 | 9 | 36 | 10 | 1.54 | 30 | -25 | 15 | 15 | 1,800 | T4 | E |
| TWCE866*100□LSZ0^00 | | | | | 5 | 0.77 | | | | | | | |
| TWCB905*125□CSZ0^00 | 9 | 125 | 1 | 5 | 5 | 7.37 | 240 | -16 | 7 | 8 | 755 | T2 | B |
| TWCB905*125□LSZ0^00 | | | | | 2.5 | 3.69 | | | | | | | |
| TWCD186*125□CSZ0^00 | 18 | 125 | 2 | 9 | 5 | 3.69 | 129 | -16 | 7 | 8 | 1,130 | T3 | D |
| TWCD186*125□LSZ0^00 | | | | | 2.5 | 1.85 | | | | | | | |
| TWCD256*125□CSZ0^00 | 25 | 125 | 2 | 13 | 6 | 3.18 | 93 | -16 | 7 | 8 | 1,200 | T3 | D |
| TWCD256*125□LSZ0^00 | | | | | 3 | 1.59 | | | | | | | |
| TWCE566*125□CSZ0^00 | 56 | 125 | 10 | 40 | 6.5 | 1.54 | 32 | -25 | 15 | 15 | 1,800 | T4 | E |
| TWCE566*125□LSZ0^00 | | | | | 3.25 | 0.77 | | | | | | | |

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

NOTE: AVX reserves the rights to supply higher voltage rating in the same case size, to the same reliability standards.

TWC SERIES

COTS-Plus – Conventional Wet Tantalum



STANDARD RATINGS & PART NUMBER REFERENCE

| AVX Part Number | Cap (µF) 25°C at 120Hz | DC Rated Voltage (V) at 85°C | DC Leakage (µA) | | DF (Max) | ESR Max (Ohms) at 120Hz | Impedance max (Ohms) -55°C at 120Hz | Maximum Capacitance Change (%) | | | AC Ripple (mA rms) 85°C at 40kHz | Case Size | |
|---------------------|------------------------------|------------------------------------|-----------------|-------------------|-------------|-------------------------------|---|-----------------------------------|-------|--------|--|-----------|-----|
| | | | +25°C | +85°C & +125°C | | | | -55°C | +85°C | +125°C | | Standard | AVX |
| TWCA227*006□CSZ0^00 | 220 | 6 | 2 | 9 | 50 | 3.02 | 36 | -64 | 13 | 16 | 1,000 | T1 | A |
| TWCA227*006□LSZ0^00 | | | | | 25 | 1.51 | | | | | | | |
| TWCB827*006□CSZ0^00 | 820 | 6 | 3 | 14 | 155 | 2.51 | 18 | -88 | 16 | 20 | 1,500 | T2 | B |
| TWCB827*006□LSZ0^00 | | | | | 77.5 | 1.26 | | | | | | | |
| TWCD158*006□CSZ0^00 | 1,500 | 6 | 5 | 20 | 172 | 1.52 | 18 | -90 | 20 | 25 | 1,900 | T3 | D |
| TWCD158*006□LSZ0^00 | | | | | 86 | 0.76 | | | | | | | |
| TWCE228*006□CSZ0^00 | 2,200 | 6 | 6 | 24 | 170 | 1.03 | 13 | -90 | 25 | 30 | 2,300 | T4 | E |
| TWCE228*006□LSZ0^00 | | | | | 85 | 0.52 | | | | | | | |
| TWCA187*008□CSZ0^00 | 180 | 8 | 2 | 9 | 41 | 3.02 | 45 | -60 | 13 | 16 | 1,000 | T1 | A |
| TWCA187*008□LSZ0^00 | | | | | 20.5 | 1.51 | | | | | | | |
| TWCB687*008□CSZ0^00 | 680 | 8 | 3 | 14 | 130 | 2.54 | 22 | -83 | 16 | 20 | 1,500 | T2 | B |
| TWCB687*008□LSZ0^00 | | | | | 65 | 1.27 | | | | | | | |
| TWCD158*008□CSZ0^00 | 1,500 | 8 | 5 | 20 | 170 | 1.5 | 18 | -90 | 20 | 25 | 1,900 | T3 | D |
| TWCD158*008□LSZ0^00 | | | | | 85 | 0.75 | | | | | | | |
| TWCE188*008□CSZ0^00 | 1,800 | 8 | 7 | 25 | 138 | 1.02 | 14 | -90 | 25 | 30 | 2,300 | T4 | E |
| TWCE188*008□LSZ0^00 | | | | | 69 | 0.51 | | | | | | | |
| TWCA157*010□CSZ0^00 | 150 | 10 | 2 | 9 | 34 | 3.01 | 54 | -55 | 13 | 16 | 900 | T1 | A |
| TWCA157*010□LSZ0^00 | | | | | 17 | 1.51 | | | | | | | |
| TWCB567*010□CSZ0^00 | 560 | 10 | 3 | 16 | 106 | 2.51 | 27 | -77 | 16 | 20 | 1,450 | T2 | B |
| TWCB567*010□LSZ0^00 | | | | | 53 | 1.26 | | | | | | | |
| TWCD128*010□CSZ0^00 | 1,200 | 10 | 5 | 20 | 137 | 1.51 | 18 | -88 | 20 | 25 | 1,850 | T3 | D |
| TWCD128*010□LSZ0^00 | | | | | 68.5 | 0.76 | | | | | | | |
| TWCE158*010□CSZ0^00 | 1,500 | 10 | 7 | 25 | 114 | 1.01 | 15 | -88 | 25 | 30 | 2,300 | T4 | E |
| TWCE158*010□LSZ0^00 | | | | | 57 | 0.51 | | | | | | | |
| TWCA107*015□CSZ0^00 | 100 | 15 | 2 | 9 | 30 | 3.98 | 72 | -44 | 13 | 16 | 900 | T1 | A |
| TWCA107*015□LSZ0^00 | | | | | 15 | 1.99 | | | | | | | |
| TWCB397*015□CSZ0^00 | 390 | 15 | 3 | 16 | 74 | 2.52 | 31 | -66 | 16 | 20 | 1,450 | T2 | B |
| TWCB397*015□LSZ0^00 | | | | | 37 | 1.26 | | | | | | | |
| TWCD827*015□CSZ0^00 | 820 | 15 | 6 | 24 | 111 | 1.8 | 22 | -77 | 20 | 25 | 1,800 | T3 | D |
| TWCD827*015□LSZ0^00 | | | | | 55.5 | 0.9 | | | | | | | |
| TWCE108*015□CSZ0^00 | 1,000 | 15 | 8 | 32 | 92 | 1.22 | 17 | -77 | 25 | 30 | 2,300 | T4 | E |
| TWCE108*015□LSZ0^00 | | | | | 46 | 0.61 | | | | | | | |
| TWCA686*025□CSZ0^00 | 68 | 25 | 2 | 9 | 22 | 4.29 | 90 | -40 | 12 | 15 | 850 | T1 | A |
| TWCA686*025□LSZ0^00 | | | | | 11 | 2.15 | | | | | | | |
| TWCB277*025□CSZ0^00 | 270 | 25 | 3 | 16 | 55 | 2.7 | 33 | -62 | 13 | 16 | 1,400 | T2 | B |
| TWCB277*025□LSZ0^00 | | | | | 27.5 | 1.35 | | | | | | | |
| TWCD567*025□CSZ0^00 | 560 | 25 | 7 | 28 | 76 | 1.8 | 24 | -72 | 20 | 25 | 1,750 | T3 | D |
| TWCD567*025□LSZ0^00 | | | | | 38 | 0.9 | | | | | | | |
| TWCE687*025□CSZ0^00 | 680 | 25 | 8 | 32 | 63 | 1.23 | 19 | -72 | 25 | 30 | 2,100 | T4 | E |
| TWCE687*025□LSZ0^00 | | | | | 31.5 | 0.62 | | | | | | | |
| TWCA566*030□CSZ0^00 | 56 | 30 | 2 | 9 | 22 | 5.21 | 100 | -38 | 12 | 15 | 800 | T1 | A |
| TWCA566*030□LSZ0^00 | | | | | 11 | 2.61 | | | | | | | |
| TWCB227*030□CSZ0^00 | 220 | 30 | 3 | 16 | 42 | 2.53 | 36 | -60 | 13 | 16 | 1,200 | T2 | B |
| TWCB227*030□LSZ0^00 | | | | | 21 | 1.27 | | | | | | | |
| TWCD477*030□CSZ0^00 | 470 | 30 | 8 | 32 | 64 | 1.81 | 25 | -65 | 20 | 25 | 1,500 | T3 | D |
| TWCD477*030□LSZ0^00 | | | | | 32 | 0.91 | | | | | | | |
| TWCE567*030□CSZ0^00 | 560 | 30 | 9 | 36 | 55 | 1.3 | 20 | -65 | 25 | 30 | 2,000 | T4 | E |
| TWCE567*030□LSZ0^00 | | | | | 27.5 | 0.65 | | | | | | | |
| TWCA336*050□CSZ0^00 | 33 | 50 | 2 | 9 | 12.3 | 4.95 | 135 | -29 | 10 | 12 | 700 | T1 | A |
| TWCA336*050□LSZ0^00 | | | | | 6.15 | 2.48 | | | | | | | |
| TWCB127*050□CSZ0^00 | 120 | 50 | 4 | 24 | 22.5 | 2.49 | 49 | -42 | 12 | 15 | 1,200 | T2 | B |
| TWCB127*050□LSZ0^00 | | | | | 11.3 | 1.25 | | | | | | | |
| TWCD277*050□CSZ0^00 | 270 | 50 | 8 | 32 | 37 | 1.82 | 29 | -46 | 20 | 25 | 1,450 | T3 | D |
| TWCD277*050□LSZ0^00 | | | | | 18.5 | 0.91 | | | | | | | |
| TWCE337*050□CSZ0^00 | 330 | 50 | 9 | 36 | 38 | 1.53 | 22 | -46 | 25 | 30 | 1,900 | T4 | E |
| TWCE337*050□LSZ0^00 | | | | | 19 | 0.77 | | | | | | | |
| TWCA276*060□CSZ0^00 | 27 | 60 | 3 | 12 | 10.2 | 5.01 | 144 | -24 | 10 | 12 | 700 | T1 | A |
| TWCA276*060□LSZ0^00 | | | | | 5.1 | 2.51 | | | | | | | |
| TWCB107*060□CSZ0^00 | 100 | 60 | 4 | 20 | 19 | 2.52 | 54 | -36 | 12 | 15 | 1,100 | T2 | B |
| TWCB107*060□LSZ0^00 | | | | | 9.5 | 1.26 | | | | | | | |
| TWCD227*060□CSZ0^00 | 220 | 60 | 8 | 32 | 30 | 1.81 | 29 | -40 | 16 | 20 | 1,400 | T3 | D |
| TWCD227*060□LSZ0^00 | | | | | 15 | 0.91 | | | | | | | |

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

NOTE: AVX reserves the rights to supply higher voltage rating in the same case size, to the same reliability standards.

TWC SERIES

COTS-Plus – Conventional Wet Tantalum



STANDARD RATINGS & PART NUMBER REFERENCE

| AVX Part Number | Cap (µF) 25°C at 120Hz | DC Rated Voltage (V) at 85°C | DC Leakage (µA) | | DF (Max) | ESR Max (Ohms) at 120Hz | Impedance max (Ohms) -55°C at 120Hz | Maximum Capacitance Change (%) | | | AC Ripple (mA rms) 85°C at 40kHz | Case Size | |
|---------------------|------------------------------|------------------------------------|-----------------|-------------------|-------------|-------------------------------|---|-----------------------------------|-------|--------|--|-----------|-----|
| | | | +25°C | +85°C & +125°C | | | | -55°C | +85°C | +125°C | | Standard | AVX |
| TWCE277*060□CSZ0^00 | 270 | 60 | 9 | 36 | 27 | 1.33 | 23 | -45 | 20 | 25 | 1,850 | T4 | E |
| TWCE277*060□LSZ0^00 | | | | | 13.5 | 0.67 | | | | | | | |
| TWCA226*075□CSZ0^00 | 22 | 75 | 3 | 12 | 8.5 | 5.13 | 157 | -19 | 10 | 12 | 600 | T1 | A |
| TWCA226*075□LSZ0^00 | | | | | 4.25 | 2.57 | | | | | | | |
| TWCB826*075□CSZ0^00 | 82 | 75 | 4 | 24 | 15.2 | 2.46 | 63 | -30 | 12 | 15 | 1,000 | T2 | B |
| TWCB826*075□LSZ0^00 | | | | | 7.6 | 1.23 | | | | | | | |
| TWCD187*075□CSZ0^00 | 180 | 75 | 9 | 36 | 24.4 | 2.23 | 30 | -35 | 16 | 20 | 1,300 | T3 | D |
| TWCD187*075□LSZ0^00 | | | | | 12.2 | 0.9 | | | | | | | |
| TWCE227*075□CSZ0^00 | 220 | 75 | 10 | 40 | 37 | 1.8 | 24 | -40 | 20 | 25 | 1,800 | T4 | E |
| TWCE227*075□LSZ0^00 | | | | | 18.5 | 1.12 | | | | | | | |
| TWCA106*100□CSZ0^00 | 10 | 100 | 3 | 12 | 4.5 | 5.97 | 200 | -17 | 10 | 12 | 800 | T1 | A |
| TWCA106*100□LSZ0^00 | | | | | 2.25 | 2.99 | | | | | | | |
| TWCB396*100□CSZ0^00 | 39 | 100 | 5 | 24 | 10.4 | 3.54 | 80 | -20 | 12 | 15 | 1,300 | T2 | B |
| TWCB396*100□LSZ0^00 | | | | | 5.2 | 1.77 | | | | | | | |
| TWCD686*100□CSZ0^00 | 68 | 100 | 10 | 40 | 11.3 | 2.21 | 40 | -30 | 14 | 16 | 1,600 | T3 | D |
| TWCD686*100□LSZ0^00 | | | | | 5.65 | 1.11 | | | | | | | |
| TWCE127*100□CSZ0^00 | 120 | 100 | 12 | 48 | 25 | 2.76 | 30 | -35 | 15 | 17 | 2,000 | T4 | E |
| TWCE127*100□LSZ0^00 | | | | | 12.5 | 1.38 | | | | | | | |
| TWCB276*125□CSZ0^00 | 27 | 125 | 5 | 24 | 7.2 | 3.54 | 90 | -18 | 12 | 15 | 1,200 | T2 | B |
| TWCB276*125□LSZ0^00 | | | | | 3.6 | 1.77 | | | | | | | |
| TWCD476*125□CSZ0^00 | 47 | 125 | 10 | 40 | 7.9 | 2.23 | 50 | -26 | 14 | 16 | 1,500 | T3 | D |
| TWCD476*125□LSZ0^00 | | | | | 3.95 | 1.12 | | | | | | | |
| TWCE826*125□CSZ0^00 | 82 | 125 | 12 | 48 | 17.4 | 2.82 | 32 | -30 | 15 | 17 | 1,900 | T4 | E |
| TWCE826*125□LSZ0^00 | | | | | 8.7 | 1.41 | | | | | | | |

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

NOTE: AVX reserves the rights to supply higher voltage rating in the same case size, to the same reliability standards.

TESTING

All TWC COTS-Plus product is tested using MIL-PRF-39006 test procedures.

Lot Conformance Testing*

| Inspection | Sampling Procedure |
|--|--------------------|
| Constant Voltage Conditioning DC Leakage Capacitance Dissipation Factor Seal, Condition A or D | 100% Inspection |
| Visual Examination Material Marking Workmanship | 13 Samples |

*Additional testing and inspection is available, please contact the factory for details.

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