

TWA Series – DSCC 93026



TWA Wet Electrolytic Tantalum Capacitor



The TWA series is an axial leaded wet electrolytic tantalum capacitor and represents a new level of high CV (capacitance/voltage) previously unavailable in this technology. TWA incorporates a novel, very high capacitance cathode system that allows for higher CV designs, well beyond values specified in the Mil-PRF-39006 drawing.

TWA products are listed in DSCC 93026, which includes new high capacitance/voltage ratings. This design includes a welded tantalum can and header assembly that provides a hermetic seal to withstand harsh shock and vibration requirements of 39006. Wet tantalums do not require the same derating as solid tantalums. AVX recommends derating components by only 20% in order to enhance reliability.

Customized capacitance and voltage packages are possible and welcomed. Contact the factory about design possibilities beyond those contained in this datasheet.

OUTLINE DIMENSIONS



CASE DIMENSIONS: millimeters (inches)

| DSCC Case Size | AVX Case Size | L | D | | E |
|----------------|---------------|--------------------------------|---------------------------|----------------------------|---------------|
| | | | Without Insulating Sleeve | With Insulating Sleeve Max | |
| | | +0.79 (0.031) -0.41 (0.016) | ±0.41 (0.016) | | ±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) | | | | | | | | |
|-----------------------|-------|------|------|------|----|------|-----|-----|
| Rated Voltage: (Ur) | 85°C | 25 | 30 | 50 | 60 | 75 | 100 | 125 |
| Derated Voltage: (Uc) | 125°C | 15 | 20 | 30 | 40 | 50 | 65 | 85 |
| Surge Voltage: (Us) | 85°C | 28.8 | 34.5 | 57.5 | 69 | 86.3 | 115 | 144 |



TWA Series – DSCC 93026



TWA Wet Electrolytic Tantalum Capacitor

HOW TO ORDER

AVX PART NUMBER:



Not RoHS Compliant

DSCC PART IDENTIFICATION NUMBER (PIN):



Not RoHS Compliant

SPACE LEVEL OPTIONS TO SRC9000*:



Not RoHS Compliant

* 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) | | | | | | | | | | | | | |
| % of 85°C | 100% | 0.60 | 0.39 | – | – | 0.71 | 0.43 | – | – | 0.72 | 0.45 | – | – |
| Rated Peak | 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 | – |
| Voltage | 70% | 0.60 | 0.58 | 0.44 | – | 0.71 | 0.69 | 0.52 | – | 0.72 | 0.70 | 0.52 | – |
| | 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) | | | | | | | | | | | | | |
| % of 85°C | 100% | 0.88 | 0.55 | – | – | 1.00 | 0.63 | – | – | 1.10 | 0.69 | – | – |
| Rated Peak | 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 | – |
| Voltage | 70% | 0.88 | 0.85 | 0.64 | – | 1.00 | 0.97 | 0.73 | – | 1.10 | 1.07 | 0.80 | – |
| | 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.



TWA Series – DSCC 93026



TWA Wet Electrolytic Tantalum Capacitor

RATINGS & PART NUMBER REFERENCE

| AVX Part Number | DSCC Part Number | Cap (µF) 25°C at 120Hz | DC Rated Voltage (V) at 85°C | ESR max (ohms) at 120Hz | DC Leakage max (µA) | | 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 | | AVX | DSCC |
| 25 VDC at 85°C 15 VDC at 125°C | | | | | | | | | | | | | |
| TWAA127*025□BSZ0000 | 93026- 29□ | 120 | 25 | 1.3 | 1 | 5 | 25 | -42 | 8 | 12 | 1250 | A | T1 |
| TWAB567*025□BSZ0000 | 93026- 30□ | 560 | 25 | 0.83 | 2 | 10 | 12 | -65 | 10 | 15 | 2100 | B | T2 |
| TWAD128*025□BSZ0000 | 93026- 31□ | 1200 | 25 | 0.65 | 5 | 20 | 7 | -70 | 12 | 18 | 2600 | D | T3 |
| TWAE188*025□BSZ0000 | 93026- 32□ | 1800 | 25 | 0.5 | 6 | 25 | 7 | -75 | 12 | 20 | 3100 | E | T4 |
| TWAE228*025□BSZ0000 | 93026- 64□ | 2200 | 25 | 0.5 | 10 | 80 | 10 | -90 | 30 | 50 | 3200 | E | T4 |
| 30 VDC at 85°C 20 VDC at 125°C | | | | | | | | | | | | | |
| TWAA107*030□BSZ0000 | 93026- 33□ | 100 | 30 | 1.3 | 1 | 5 | 25 | -38 | 8 | 12 | 1200 | A | T1 |
| TWAB477*030□BSZ0000 | 93026- 34□ | 470 | 30 | 0.85 | 2 | 10 | 15 | -65 | 10 | 18 | 1800 | B | T2 |
| TWAD108*030□BSZ0000 | 93026- 35□ | 1000 | 30 | 0.7 | 7 | 25 | 7 | -70 | 10 | 18 | 2500 | D | T3 |
| TWAE158*030□BSZ0000 | 93026- 36□ | 1500 | 30 | 0.6 | 12 | 35 | 6 | -72 | 10 | 20 | 3000 | E | T4 |
| 50 VDC at 85°C 30 VDC at 125°C | | | | | | | | | | | | | |
| TWAA686*050□BSZ0000 | 93026- 37□ | 68 | 50 | 1.5 | 1 | 5 | 35 | -25 | 8 | 15 | 1050 | A | T1 |
| TWAB227*050□BSZ0000 | 93026- 38□ | 220 | 50 | 0.9 | 2 | 10 | 17.5 | -50 | 8 | 15 | 1800 | B | T2 |
| TWAD477*050□BSZ0000 | 93026- 39□ | 470 | 50 | 0.75 | 3 | 25 | 10 | -50 | 8 | 15 | 2100 | D | T3 |
| TWAE687*050□BSZ0000 | 93026- 40□ | 680 | 50 | 0.7 | 5 | 40 | 8 | -58 | 10 | 20 | 2750 | E | T4 |
| 60 VDC at 85°C 40 VDC at 125°C | | | | | | | | | | | | | |
| TWAA476*060□BSZ0000 | 93026- 41□ | 47 | 60 | 2 | 1 | 5 | 44 | -25 | 8 | 12 | 1050 | A | T1 |
| TWAB157*060□BSZ0000 | 93026- 42□ | 150 | 60 | 1.1 | 2 | 10 | 20 | -40 | 8 | 15 | 1650 | B | T2 |
| TWAD397*060□BSZ0000 | 93026- 43□ | 390 | 60 | 0.9 | 3 | 25 | 15 | -60 | 8 | 15 | 2100 | D | T3 |
| TWAE567*060□BSZ0000 | 93026- 44□ | 560 | 60 | 0.8 | 5 | 40 | 10 | -58 | 8 | 15 | 2750 | E | T4 |
| TWAE108*060□BSZ0000 | 93026- 65□ | 1000 | 60 | 1 | 12 | 90 | 20 | -90 | 30 | 50 | 3200 | E | T4 |
| 75 VDC at 85°C 50 VDC at 125°C | | | | | | | | | | | | | |
| TWAA336*075□BSZ0000 | 93026- 45□ | 33 | 75 | 2.5 | 1 | 5 | 66 | -25 | 5 | 9 | 1050 | A | T1 |
| TWAB117*075□BSZ0000 | 93026- 46□ | 110 | 75 | 1.3 | 2 | 10 | 24 | -35 | 6 | 10 | 1650 | B | T2 |
| TWAD337*075□BSZ0000 | 93026- 47□ | 330 | 75 | 1 | 3 | 30 | 12 | -45 | 6 | 10 | 2100 | D | T3 |
| TWAE477*075□BSZ0000 | 93026- 48□ | 470 | 75 | 0.9 | 5 | 50 | 12 | -55 | 6 | 10 | 2750 | E | T4 |
| 100 VDC at 85°C 65 VDC at 125°C | | | | | | | | | | | | | |
| TWAA156*100□BSZ0000 | 93026- 49□ | 15 | 100 | 3.5 | 1 | 5 | 125 | -18 | 3 | 10 | 1050 | A | T1 |
| TWAB686*100□BSZ0000 | 93026- 50□ | 68 | 100 | 2.1 | 2 | 10 | 37 | -30 | 4 | 12 | 1650 | B | T2 |
| TWAD157*100□BSZ0000 | 93026- 51□ | 150 | 100 | 1.6 | 3 | 25 | 22 | -35 | 6 | 12 | 2100 | D | T3 |
| TWAE227*100□BSZ0000 | 93026- 52□ | 220 | 100 | 1.2 | 5 | 50 | 15 | -40 | 6 | 12 | 2750 | E | T4 |
| 125 VDC at 85°C 85 VDC at 125°C | | | | | | | | | | | | | |
| TWAA106*125□BSZ0000 | 93026- 53□ | 10 | 125 | 5.5 | 1 | 5 | 175 | -15 | 3 | 10 | 1050 | A | T1 |
| TWAB476*125□BSZ0000 | 93026- 54□ | 47 | 125 | 2.3 | 2 | 10 | 47 | -25 | 5 | 12 | 1650 | B | T2 |
| TWAD107*125□BSZ0000 | 93026- 55□ | 100 | 125 | 1.8 | 3 | 25 | 35 | -35 | 5 | 12 | 2100 | D | T3 |
| TWAE157*125□BSZ0000 | 93026- 56□ | 150 | 125 | 1.6 | 5 | 50 | 20 | -35 | 6 | 12 | 2750 | E | T4 |

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.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.