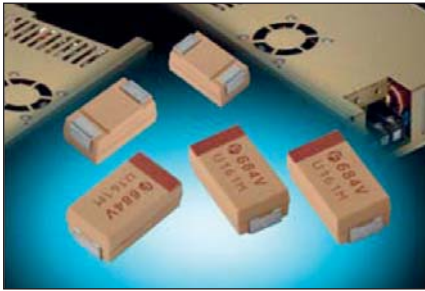


TAW Series



Tantalum Solid Electrolytic Fused Capacitors



- Thin film fuse connected in series with capacitor
- Protection from possible damaging from high DC leakage current (short circuit failure)
- CV range: 6.8-100 μ F / 10-50V
- Application: servers

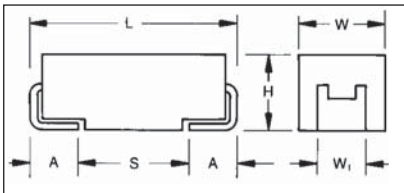


LEAD-FREE

LEAD-FREE COMPATIBLE COMPONENT



RoHS COMPLIANT



For part marking see page 169

CASE DIMENSIONS: millimeters (inches)

| Code | EIA Code | EIA Metric | L \pm 0.20 (0.008) | W \pm 0.20 (0.008) -0.10 (0.004) | H \pm 0.20 (0.008) -0.10 (0.004) | W ₁ \pm 0.20 (0.008) | A \pm 0.30 (0.012) -0.20 (0.008) | S Min. |
|------|----------|------------|----------------------|------------------------------------|------------------------------------|-----------------------------------|------------------------------------|--------------|
| 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) |

W₁ dimension applies to the termination width for A dimensional area only.

HOW TO ORDER

| | | | | | | |
|------------|------------------------------|--|---|--|--|-------------------|
| TAW | D | 476 | * | 010 | R | 0500 |
| Type | Case Size See table above | Capacitance Code pF code: 1st two digits represent significant figures 3rd digit represents multiplier (number of zeros to follow) | Tolerance K= \pm 10% M= \pm 20% | Rated DC Voltage 010=10Vdc 016=16Vdc 020=20Vdc 025=25Vdc 035=35Vdc 050=50Vdc | Packaging R = Pure Tin 7" Reel S = Pure Tin 13" Reel | ESR in m Ω |

TECHNICAL SPECIFICATIONS

| | | | | | | | | |
|------------------------------------|---|----|----|----|----|----|----|--|
| Technical Data: | All technical data relate to an ambient temperature of +25°C | | | | | | | |
| Capacitance Range: | 6.8 μ F to 100 μ F | | | | | | | |
| Capacitance Tolerance: | \pm 10%; \pm 20% | | | | | | | |
| Rated Voltage (V _R) | \leq +85°C: | 10 | 16 | 20 | 25 | 35 | 50 | |
| Category Voltage (V _C) | \leq +125°C: | 7 | 10 | 13 | 17 | 23 | 33 | |
| Surge Voltage (V _S) | \leq +85°C: | 13 | 20 | 26 | 32 | 46 | 65 | |
| Surge Voltage (V _S) | \leq +125°C: | 8 | 13 | 16 | 20 | 28 | 40 | |
| Fuse Off | I > 4A in 1s, insulating resistance > 10M Ω | | | | | | | |
| Fuse Continuous Current Capability | 0.75A | | | | | | | |
| Temperature Range: | -55°C to +125°C | | | | | | | |
| Reliability: | 1% per 1000 hours at 85°C, V _r with 0.1 Ω /V series impedance, 60% confidence level | | | | | | | |



Tantalum Solid Electrolytic Fused Capacitors

CAPACITANCE AND RATED VOLTAGE RANGE (LETTER DENOTES CASE SIZE)

| Capacitance | | Rated Voltage DC (V_R) to 85°C | | | | | | |
|---------------|------|------------------------------------|---------|---------|---------|---------|---------|---------|
| μF | Code | 6.3V (J) | 10V (A) | 16V (C) | 20V (D) | 25V (E) | 35V (V) | 50V (T) |
| 1.0 | 105 | | | | | | | |
| 2.2 | 225 | | | | | | | |
| 4.7 | 475 | | | | | | | |
| 6.8 | 685 | | | | | | D(600) | D(700) |
| 10 | 106 | | | | | D(600) | D(600) | D(700) |
| 22 | 226 | | | | D(500) | D(600) | | |
| 33 | 336 | | | D(600) | D(500) | | | |
| 47 | 476 | | D(500) | D(800) | | | | |
| 100 | 107 | | D(500) | | | | | |

Available Ratings (ESR ratings in mOhms in brackets)

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 Part No. | Case Size | Capacitance (μF) | Rated Voltage (V) | DCL (μA) Max. | DF % Max. | ESR Max. (m Ω) @100kHz | MSL | 100kHz RMS Current (mA) | | | 100kHz RMS Voltage (mV) | | |
|---|-----------|-------------------------------|-------------------|----------------------------|-----------|--------------------------------|-----|-------------------------|------|-------|-------------------------|------|-------|
| | | | | | | | | 25°C | 85°C | 125°C | 25°C | 85°C | 125°C |
| 10 Volt @ 85°C (7 Volt @ 125°C) | | | | | | | | | | | | | |
| TAWD476*010#0500 | D | 47 | 10 | 4.7 | 6 | 500 | 1 | 548 | 493 | 219 | 274 | 246 | 110 |
| TAWD107*010#0500 | D | 100 | 10 | 10 | 8 | 500 | 1 | 548 | 493 | 219 | 274 | 246 | 110 |
| 16 Volt @ 85°C (10 Volt @ 125°C) | | | | | | | | | | | | | |
| TAWD336*016#0600 | D | 33 | 16 | 5.3 | 6 | 600 | 1 | 500 | 450 | 200 | 300 | 270 | 120 |
| TAWD476*016#0800 | D | 47 | 16 | 7.5 | 7 | 800 | 1 | 433 | 390 | 173 | 346 | 312 | 139 |
| 20 Volt @ 85°C (13 Volt @ 125°C) | | | | | | | | | | | | | |
| TAWD226*020#0500 | D | 22 | 20 | 4.4 | 6 | 500 | 1 | 548 | 493 | 219 | 274 | 246 | 110 |
| TAWD336*020#0500 | D | 33 | 20 | 6.6 | 6 | 500 | 1 | 548 | 493 | 219 | 274 | 246 | 110 |
| 25 Volt @ 85°C (17 Volt @ 125°C) | | | | | | | | | | | | | |
| TAWD106*025#0600 | D | 10 | 25 | 2.5 | 6 | 600 | 1 | 500 | 450 | 200 | 300 | 270 | 120 |
| TAWD226*025#0600 | D | 22 | 25 | 5.5 | 6 | 600 | 1 | 500 | 450 | 200 | 300 | 270 | 120 |
| 35 Volt @ 85°C (23 Volt @ 125°C) | | | | | | | | | | | | | |
| TAWD685*035#0600 | D | 6.8 | 35 | 2.4 | 6 | 600 | 1 | 500 | 450 | 200 | 300 | 270 | 120 |
| TAWD106*035#0600 | D | 10 | 35 | 3.5 | 6 | 600 | 1 | 500 | 450 | 200 | 300 | 270 | 120 |
| 50 Volt @ 85°C (33 Volt @ 125°C) | | | | | | | | | | | | | |
| TAWD685*050#0700 | D | 6.8 | 50 | 3.4 | 6 | 700 | 1 | 463 | 417 | 185 | 324 | 292 | 130 |
| TAWD106*050#0700 | D | 10 | 50 | 5 | 6 | 700 | 1 | 463 | 417 | 185 | 324 | 292 | 130 |

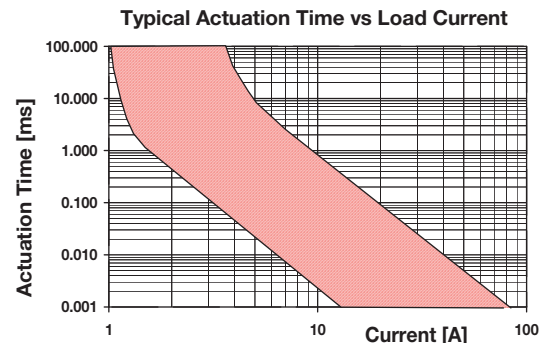
Moisture Sensitivity Level (MSL) is defined according to J-STD-020.

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

For typical weight and composition see page 162.

NOTE: AVX reserves the right to supply a higher voltage rating or tighter tolerance part in the same case size, to the same reliability standards.

TYPICAL FUSE ACTUATION



Note: for a different fuse characteristic requirements please contact manufacturer