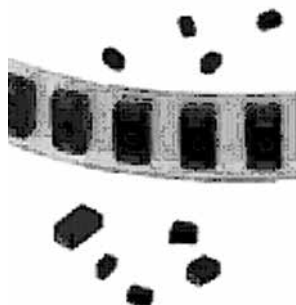


Low ESR, High Ripple Current, Solid Tantalum Chip Capacitors



Like the T491 standard tantalum capacitors the Type T495's physical outline and dimensions conform to the global standard for tantalum capacitor chips and exceed the requirements for EIA standard 535BAAC, but performance sets the T495 apart. The very low ESR, high ripple current capability, capacitance stability, and ability to withstand high inrush currents makes the T495 ideal for output filtering in switch-mode power supplies and DC-DC converters and in battery-stiffening filters. This capability is from unique design and high-stress, low impedance electrical conditioning. Reliability and thermal stability are assured by lead-frame attachments to the tantalum pellet made by microprocessor-controlled welding and high temperature silver epoxy adhesive. Standard packaging is compatible with all tape-fed placement units and with EIA 481-1 tape and reel specifications.

Highlights

- ◆ Designed for very low ESR
- ◆ High ripple current capability
- ◆ High surge current capability
- ◆ Taped and reeled per EIA RS 481-1
- ◆ Low ESL (<2.5 nH ESL)
- ◆ High operating temperature +125 °C

Specifications

| | |
|--|--|
| Capacitance Range: | 4.7 μ F to 470 μ F |
| Tolerance: | \pm 10% standard, \pm 20% available |
| Voltage Range: | 6 Vdc to 50 Vdc |
| Operating Temperature: | -55 °C to +125 °C (with proper derating) |
| Cap Change From Initial Limit: | -10% @ -55 °C; +10% @ +85 °C +12% @ +125 °C |
| DC Leakage: | At 25 °C — See Ratings At 85 °C — 10 x 25 °C Limit At 125 °C — 12 x 25 °C Limit |
| Dissipation Factor: | 0.1 μ F to 1.0 μ F — 4% 1.5 μ F to 68 μ F — 6% 100 μ F to 330 μ F — 8% |
| Standard Packaging Tape and Reel: | EIA RS-481-1 |



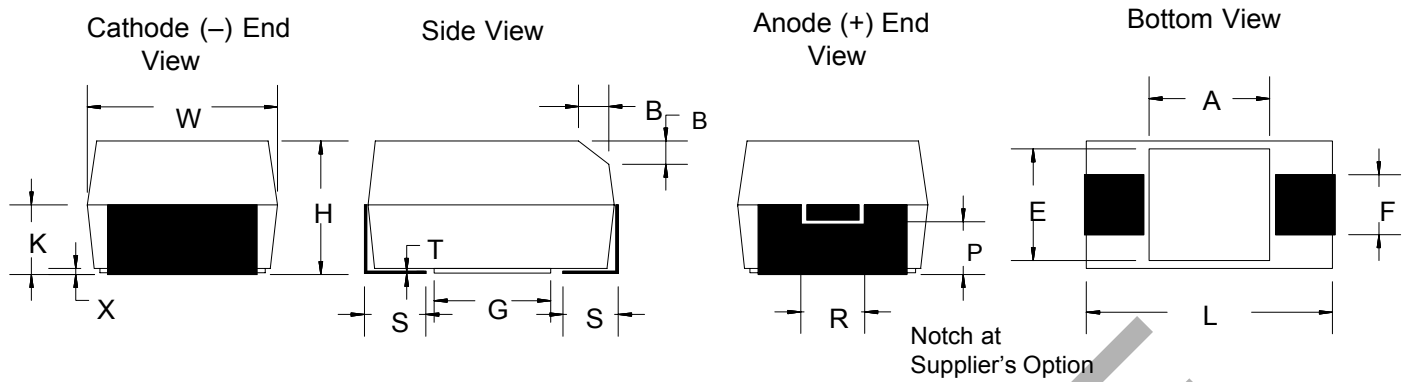
Complies with the EU Directive 2002/95/EC requirement restricting the use of Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent chromium (Cr(VI)), PolyBrominated Biphenyls (PBB) and PolyBrominated Diphenyl Ethers (PBDE).

| Case Code | EIA IECQ | Qty per 7" Reel | Tape | |
|-----------|----------|-----------------|-------|-------|
| | | | Width | Pitch |
| D | 7343 | 500 | 12mm | 8mm |
| X | 7343H | 500 | 12mm | 8mm |
| V | 7343L | 2,500 | 8mm | 4mm |

13" Reels Available on Special Order

Type T495 Solid Tantalum Chip Capacitors

Capacitor Outline Drawing



Dimensions Millimeters (Inches)

| Case EIA/ | | | | | | | B | X | P | R | T | A | G | E |
|-----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------|---------|---------|---------|---------|---------|
| Code IECQ | L | W | H | K | F | S | (Ref) | (Ref) | (Ref) | (Ref) | (Ref) | (Min) | (Ref) | (Ref) |
| D 7343-31 | 7.3 ± 0.3 | 4.3 ± 0.3 | 2.8 ± 0.3 | 1.5 ± 0.2 | 2.4 ± 0.1 | 1.3 ± 0.3 | 0.5 ± 0.15 | 0.10 ± 0.10 | 0.9 | 1 | 0.13 | 3.8 | 3.5 | 3.5 |
| | (.287 ± .012) | (.169 ± .012) | (.110 ± .012) | (.059 ± .008) | (.094 ± .004) | (.051 ± .012) | (.020 ± .006) | (.004 ± .004) | (0.035) | (0.039) | (0.005) | (0.150) | (0.138) | (0.138) |
| X 7343-43 | 7.3 ± 0.3 | 4.3 ± 0.3 | 4.0 ± 0.3 | 2.3 ± 0.2 | 2.4 ± 0.1 | 1.3 ± 0.3 | 0.5 ± 0.15 | 0.10 ± 0.10 | 1.7 | 1 | 0.13 | 3.8 | 3.5** | 3.5** |
| | (.287 ± .012) | (.169 ± .012) | (.157 ± .012) | (.091 ± .008) | (.094 ± .004) | (.051 ± .012) | (.020 ± .006) | (.004 ± .004) | (0.067) | (0.039) | (0.005) | (0.150) | (0.138) | (0.138) |

- Notes: 1 Metric dimensions govern.
 2 (Ref) - Dimensions provided for reference only.
 ** Round Glue Pad 2.9 ± 0.1mm (.114 ± .004) in diameter at Supplier's option.

Low Profile Capacitor Dimensions Millimeters (Inches)

| Case EIA/ | | | | | | | | X | T | A | G | E |
|-----------|----------------|----------------|---------|---------|---------|---------|---------|---------|--------|---------|---------|---|
| Code IECQ | L | W | H Max. | K Min. | F ± 0.1 | S ± 0.3 | (Ref) | (Ref) | (Min) | (Ref) | (Ref) | |
| V 7343-20 | 7.3 ± 0.3 | 4.3 ± 0.3 | 2.0 | 1.1 | 2.4 | 1.3 | 0.05 | 0.13 | 3.8 | 3.5 | 3.5 | |
| | (.287 ± 0.012) | (.169 ± 0.012) | (0.079) | (0.043) | (0.094) | (0.051) | (0.002) | (0.005) | (.150) | (0.138) | (0.138) | |

- Notes: 1 Metric dimensions govern.
 2 (Ref) - Dimensions provided for reference only.
 3 No dimensions provided for B, P or R because low profile cases do not have a bevel or notch.

Part Numbering System

| | | | | | | | |
|---------------|-------------|--------------------|------------------|----------------|---------------------------|---|--------------------------------------|
| T495 | D | 106 | K | 035 | A | S | -F |
| | | | | | | | |
| Series | Case | Capacitance | Tolerance | Voltage | Failure Rate Level | | RoHS Compliant |
| T495 | D | 685 = 6.8 μF | K = ±10% | 006 = 6 Vdc | A = Not Applicable | | (100% Matte Tin finish on terminals) |
| | X | 226 = 22 μF | M = ±20% | 035 = 35 Vdc | | | |
| | V | 227 = 220 μF | | | | | |

Type T495 Solid Tantalum Chip Capacitors

Ratings

| Cap (µF) | Cap Tol. | Case Code | | Catalog Part Number | Max DC | Max DF | Max ESR | Max Amps |
|--|-------------|-----------|-------------|------------------------|--------------------|-------------------|--------------------|--------------------|
| | | CDE | EIA IECQ | | Leakage @ 25 °C | @ 25 °C 120 Hz | @ 25 °C 100 kHz | @ 25 °C 100 kHz |
| | | | | | (µA) | (%) | (Ω) | (A) |
| 6/6.3 WVdc @ +85 °C (4 WVdc @ 125 °C) | | | | | | | | |
| 68 | 10% | D | 7343 | T495D686K006AS-F | 3.3 | 4 | 0.175 | 0.9 |
| 100 | 10% | V | 7343L | T495V107K006AS-F | 6.0 | 8 | 0.150 | 0.9 |
| 150 | 10% | X | 7343H | T495X157K006AS-F | 7.2 | 6 | 0.100 | 1.3 |
| 220 | 10% | D | 7343 | T495D227K006AS-F | 13.2 | 8 | 0.100 | 1.2 |
| 220 | 10% | X | 7343H | T495X227K006AS-F | 13.2 | 8 | 0.100 | 1.3 |
| 330 | 10% | X | 7343H | T495X337K006AS-F | 19.8 | 8 | 0.100 | 1.3 |
| 470 | 10% | X | 7343H | T495X477K006AS-F | 28.2 | 10 | 0.065 | 1.6 |
| 10 WVdc @ +85 °C (7 WVdc @ 125 °C) | | | | | | | | |
| 47 | 10% | D | 7343 | T495D476K010AS-F | 3.8 | 4 | 0.20 | 0.9 |
| 68 | 10% | D | 7343 | T495D686K010AS-F | 6.8 | 6 | 0.15 | 1.0 |
| 68 | 10% | X | 7343H | T495X686K010AS-F | 5.4 | 4 | 0.15 | 1.1 |
| 100 | 10% | D | 7343 | T495D107K010AS-F | 10.0 | 8 | 0.10 | 1.2 |
| 100 | 10% | X | 7343H | T495X107K010AS-F | 8.0 | 6 | 0.10 | 1.3 |
| 150 | 10% | D | 7343 | T495D157K010AS-F | 15.0 | 8 | 0.10 | 1.2 |
| 150 | 10% | X | 7343H | T495X157K010AS-F | 15.0 | 8 | 0.10 | 1.3 |
| 220 | 10% | X | 7343H | T495X227K010AS-F | 22.0 | 8 | 0.10 | 1.3 |
| 16 WVdc @ +85 °C (10 WVdc @ 125 °C) | | | | | | | | |
| 33 | 10% | D | 7343 | T495D336K016AS-F | 4.2 | 4 | 0.225 | 0.8 |
| 47 | 10% | D | 7343 | T495D476K016AS-F | 7.5 | 6 | 0.150 | 1.0 |
| 100 | 10% | D | 7343 | T495D107K016AS-F | 16.0 | 8 | 0.125 | 1.1 |
| 100 | 10% | X | 7343H | T495X107K016AS-F | 16.0 | 8 | 0.100 | 1.3 |
| 20 WVdc @ +85 °C (13 WVdc @ 125 °C) | | | | | | | | |
| 15 | 10% | D | 7343 | T495D156K020AS-F | 2.4 | 4 | 0.275 | 0.7 |
| 22 | 10% | D | 7343 | T495D226K020AS-F | 3.5 | 4 | 0.225 | 0.8 |
| 33 | 10% | D | 7343 | T495D336K020AS-F | 6.6 | 6 | 0.200 | 0.9 |
| 47 | 10% | X | 7343H | T495X476K020AS-F | 7.5 | 4 | 0.150 | 1.0 |
| 68 | 10% | X | 7343H | T495X686K020AS-F | 13.6 | 6 | 0.150 | 1.0 |
| 25 WVdc @ +85 °C (17 WVdc @ 125 °C) | | | | | | | | |
| 15 | 10% | D | 7343 | T495D156K025AS-F | 3.8 | 6 | 0.275 | 0.7 |
| 15 | 10% | X | 7343H | T495X156K025AS-F | 3.0 | 4 | 0.200 | 0.9 |
| 22 | 10% | D | 7343 | T495D226K025AS-F | 5.5 | 6 | 0.200 | 0.9 |
| 22 | 10% | X | 7343H | T495X226K025AS-F | 4.4 | 4 | 0.225 | 0.9 |
| 33 | 10% | X | 7343H | T495X336K025AS-F | 6.6 | 4 | 0.175 | 1.0 |
| 35 WVdc @ +85 °C (23 WVdc @ 125 °C) | | | | | | | | |
| 6.8 | 10% | X | 7343H | T495X685K035AS-F | 1.9 | 4 | 0.300 | 0.7 |
| 10 | 10% | D | 7343 | T495D106K035AS-F | 3.5 | 6 | 0.300 | 0.7 |
| 10 | 10% | X | 7343H | T495X106K035AS-F | 2.8 | 4 | 0.250 | 0.8 |
| 15 | 10% | D | 7343 | T495D156K035AS-F | 5.3 | 6 | 0.300 | 0.7 |
| 15 | 10% | X | 7343H | T495X156K035AS-F | 5.3 | 6 | 0.225 | 0.9 |
| 22 | 10% | X | 7343H | T495X226K035AS-F | 7.7 | 6 | 0.275 | 0.8 |
| 50 WVdc @ +85 °C (33 WVdc @ 125 °C) | | | | | | | | |
| 4.7 | 10% | X | 7343H | T495X475K050AS-F | 1.9 | 4 | 0.300 | 0.7 |

Note: CDE reserves the right to offer higher rated voltage substitutes within the same case size. The marking will indicate the higher voltage.

Type T495 Solid Tantalum Chip Capacitors

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OBSOLETE