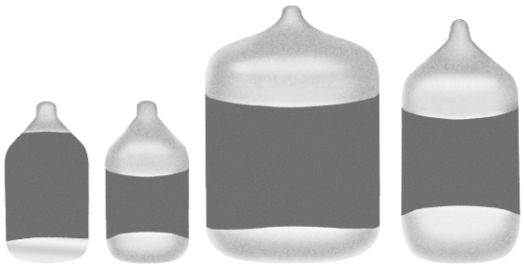
# Solid Tantalum Chip Capacitors
## TANTAMOUNT®, Low Profile, Conformal Coated, Maximum CV



P case top | P case bottom | B and T cases | Q, S and A cases | Images not to scale

### FEATURES

- **P case offers single-sided lead (Pb)-free terminations**
- Wraparound lead (Pb)-free terminations: Q, S, A, B and T
- Low Impedance
- 8 mm and 12 mm tape and reel packaging available per EIA-481-1 and reeling per IEC 286-3
  7" [178 mm] standard
  13" [330 mm] available

Pb-free
RoHS COMPLIANT

### PERFORMANCE CHARACTERISTICS

**Operating Temperature:** - 55 °C to + 85 °C
(to + 125 °C with voltage derating)

**Note:** Refer to Doc. 40088

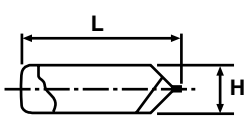
**Capacitance Range:** 2.2 µF to 220 µF
**Capacitance Tolerance:** ± 10 %, ± 20 % standard
**Voltage Rating:** 4 WVDC to 25 WVDC

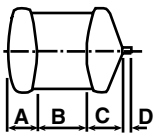
### ORDERING INFORMATION

| 572D | 336 | X0 | 6R3 | A | 2 | T |
|---|---|---|---|---|---|---|
| TYPE | CAPACITANCE | CAPACITANCE TOLERANCE | DC VOLTAGE RATING AT + 85 °C | CASE CODE | TERMINATION | REEL SIZE AND PACKAGING |
| | This is expressed in picofarads. The first two digits are the significant figures. The third is the number of zeros to follow. | **X0 = ± 20 %**<br>X9 = ± 10 % | This is expressed in volts. To complete the three-digit block, zeros precede the voltage rating. A decimal point is indicated by an "R" (6R3 = 6.3 V). | See Ratings and Case Codes Table | **2 = 100 % Tin**<br>4 = Gold Plated | **T** = Tape and Reel<br>7" [178 mm] Reel<br>W = 13" [330 mm] Reel |

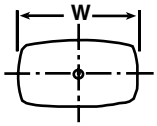
**Note:** Preferred Tolerance and reel sizes are in bold
We reserve the right to supply higher voltage ratings and tighter capacitance tolerance capacitors in the same case size

### DIMENSIONS in inches [millimeters]

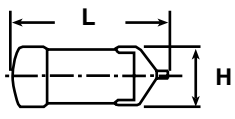


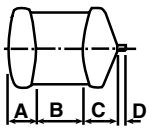



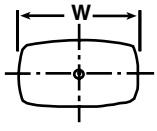

**Single-side electrodes (Both electrodes at bottom side only)**




| CASE CODE | L (MAX.) | W | H | A | B | C | D (REF.) |
|---|---|---|---|---|---|---|---|
| P | 0.087 ± 0.012 [2.2 ± 0.3] | 0.049 ± 0.012 [1.25 ± 0.3] | 0.039 ± 0.008 [1.0 ± 0.2] | 0.024 ± 0.012 [0.6 ± 0.3] | 0.031 ± 0.012 [0.8 ± 0.3] | 0.031 ± 0.012 [0.8 ± 0.3] | 0.008 [0.2] |




| CASE CODE | L (MAX.) | W | H | A | B | C | D (REF.) |
|---|---|---|---|---|---|---|---|
| Q | 0.126 ± 0.008 [3.2 ± 0.2] | 0.063 ± 0.008 [1.6 ± 0.2] | 0.031 ± 0.008 [0.8 ± 0.2] | 0.031 ± 0.008 [0.8 ± 0.2] | 0.047 ± 0.008 [1.2 ± 0.2] | 0.031 ± 0.008 [0.8 ± 0.2] | 0.008 [0.2] |
| S | 0.126 ± 0.012 [3.2 ± 0.3] | 0.063 ± 0.012 [1.6 ± 0.3] | 0.039 ± 0.008 [1.0 ± 0.2] | 0.031 ± 0.012 [0.8 ± 0.3] | 0.047 ± 0.012 [1.2 ± 0.3] | 0.031 ± 0.012 [0.8 ± 0.3] | 0.008 [0.2] |
| A | 0.126 ± 0.012 [3.2 ± 0.3] | 0.067 ± 0.012 [1.7 ± 0.3] | 0.05 ± 0.012 [1.3 ± 0.3] | 0.031 ± 0.012 [0.8 ± 0.3] | 0.047 ± 0.012 [1.2 ± 0.3] | 0.031 ± 0.012 [0.8 ± 0.3] | 0.008 [0.2] |
| B | 0.130 ± 0.012 [3.3 ± 0.3] | 0.106 ± 0.012 [2.7 ± 0.3] | 0.066 ± 0.012 [1.7 ± 0.3] | 0.031 ± 0.012 [0.8 ± 0.3] | 0.047 ± 0.012 [1.2 ± 0.3] | 0.043 ± 0.012 [1.1 ± 0.3] | 0.008 [0.2] |
| T | 0.138 ± 0.008 [3.5 ± 0.2] | 0.106 ± 0.008 [2.7 ± 0.2] | 0.039 ± 0.008 [1.0 ± 0.2] | 0.031 ± 0.008 [0.8 ± 0.2] | 0.047 ± 0.008 [1.2 ± 0.2] | 0.043 ± 0.008 [1.1 ± 0.2] | 0.008 [0.2] |

## RATINGS AND CASE CODE

| µF | 4 V | 6.3 V | 10 V | 16 V | 25 V |
|---|---|---|---|---|---|
| 2.2 | | | | | Q |
| 4.7 | | | | | A/S |
| 6.8 | | | | | |
| 10 | | | P | | A |
| 15 | | | | | |
| 22 | | | | A/B/T | |
| 33 | P | A/P/Q/S | P/A/S | | |
| 47 | | Q/S | S* | | |
| 68 | | S | B | | |
| 100 | | A/B/T/S/Q* | B/T | | |
| 220 | B/B**/T/S | B | | | |
| 330 | T* | | | | |

## STANDARD RATINGS

| CAPACITANCE (µF) | CASE CODE | PART NUMBER | MAX. DCL AT + 25 °C (µA) | MAX. DF AT + 25 °C 120 Hz (%) | MAX. ESR AT + 25 °C 100 kHz (Ω) | MAX. RIPPLE 100 kHz $I_{rms}$ (A) |
|---|---|---|---|---|---|---|
| **4 WVDC AT + 85 °C, SURGE = 5.2 V . . . 2.7 WVDC AT + 125 °C, SURGE = 3.4 V** | | | | | | |
| 33 | P | 572D336X_004P2_001** | 1.32 | 14 | 1.5 | 0.13 |
| 220 | B | 572D227X_004B2_ | 8.8 | 16 | 0.2 | 0.63 |
| 220 | B | 572D227X_004B2_001** | 8.8 | 16 | 0.2 | 0.63 |
| 220 | T | 572D227X_004T2_ | 8.8 | 26 | 0.6 | 0.37 |
| 220 | S | 572D227X0004S2_ | 8.8 | 25 | 0.8 | 0.26 |
| 330* | T* | 572D337X_004T2_* | 13.2* | 26* | 0.8* | 0.56* |
| **6.3 WVDC AT 85 °C, SURGE = 8 V . . . 4 WVDC AT + 125 °C, SURGE = 5 V** | | | | | | |
| 33 | A | 572D336X_6R3A2_ | 2.1 | 8 | 0.8 | 0.29 |
| 33 | P | 572D336X06R3P2_ | 2.1 | 14 | 1.5 | 0.13 |
| 33 | Q | 572D336X_6R3Q2_ | 2.1 | 10 | 2.0 | 0.17 |
| 33 | S | 572D336X_6R3S2_ | 2.1 | 10 | 1.0 | 0.24 |
| 47 | Q | 572D476X_6R3Q2_ | 3.0 | 10 | 1.1 | 0.22 |
| 47 | S | 572D476X_6R3S2_ | 3.0 | 10 | 0.9 | 0.25 |
| 68 | S | 572D686X06R3S2_ | 4.3 | 12 | 0.9 | 0.26 |
| 100 | A | 572D107X_6R3A2_ | 6.3 | 14 | 0.5 | 0.36 |
| 100 | B | 572D107X_6R3B2_ | 6.3 | 14 | 0.4 | 0.45 |
| 100 | T | 572D107X_6R3T2_ | 6.3 | 14 | 0.5 | 0.36 |
| 100 | S | 572D107X_6R3S2_ | 6.3 | 20 | 1.0 | 0.24 |
| 100* | Q* | 572D107X_ 6R3Q2_* | 6.3* | 25* | 1.5* | 0.19* |
| 220 | B | 572D227X_6R3B2_ | 13.9 | 16 | 0.2 | 0.63 |
| **10 WVDC AT + 85 °C, SURGE = 13 V . . . 7 WVDC AT + 125 °C, SURGE = 8 V** | | | | | | |
| 10 | P | 572D106X_010P2_ | 1.0 | 8 | 3.0 | 0.09 |
| 33 | P | 572D336X0010P2_ | 3.3 | 25 | 4.0 | 0.08 |
| 33 | A | 572D336X0010A2_ | 3.3 | 10 | 0.8 | 0.29 |
| 33 | S | 572D336X0010S2_ | 3.3 | 10 | 1.1 | 0.23 |
| 47* | S* | 572D476X0010S2_* | 4.7* | 14* | 1.1* | 0.23* |
| 68 | B | 572D686X_010B2_ | 6.8 | 6 | 0.45 | 0.42 |
| 100 | B | 572D107X0010B2_ | 10 | 14 | 0.4 | 0.45 |
| 100 | T | 572D107X0010T2_ | 10.0 | 18 | 0.5 | 0.40 |
| **16 WVDC AT + 85 °C, SURGE = 20 V . . . 10 WVDC AT + 125 °C, SURGE = 12 V** | | | | | | |
| 22 | A | 572D226X_016A2_ | 3.5 | 8 | 1.4 | 0.22 |
| 22 | B | 572D226X_016B2_ | 3.5 | 6 | 0.5 | 0.45 |
| 22 | T | 572D226X_016T2_ | 3.5 | 8 | 1.0 | 0.24 |
| **25 WVDC AT + 85 °C, SURGE = 32 V . . . 17 WVDC AT + 125 °C, SURGE = 20 V** | | | | | | |
| 2.2 | Q | 572D225X_025Q2_ | 0.65 | 6 | 5.0 | 0.10 |
| 4.7 | A | 572D475X_025A2_ | 1.2 | 6 | 2.0 | 0.18 |
| 4.7 | S | 572D475X_025S2_ | 1.2 | 8 | 4.0 | 0.12 |
| 10 | A | 572D106X_025A2_ | 2.5 | 10 | 3.5 | 0.15 |

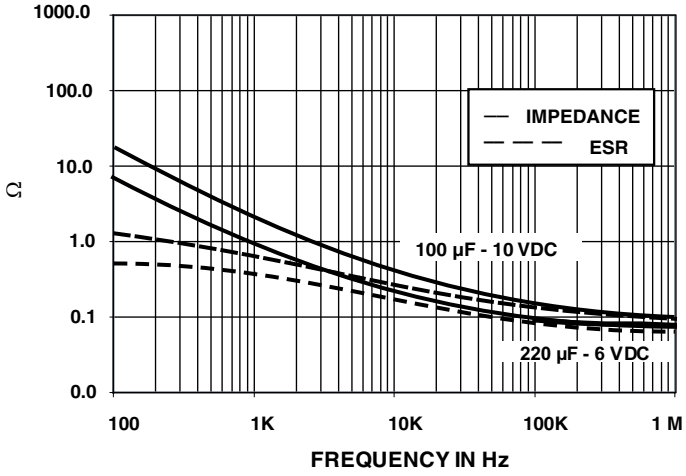
**Note:**

* Contact factory for availability

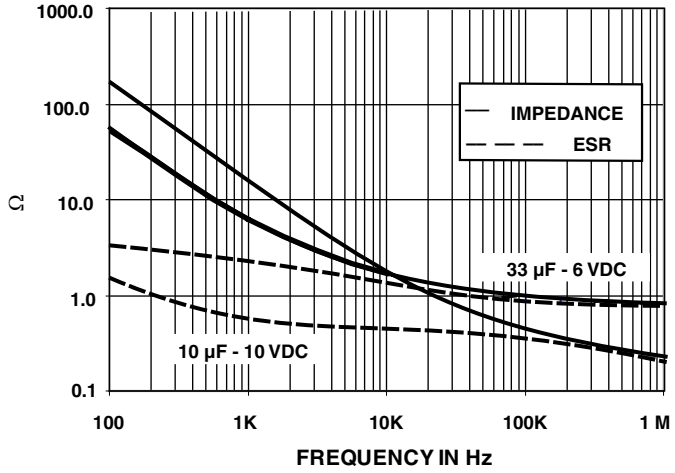
** Special Height: 572D227X_004B2_001, height = 1.7 mm Max.; 572D336X_004P2_001, height = 1.0 mm Max.

## TYPICAL CURVES AT + 25 °C, IMPEDANCE AND ESR VS. FREQUENCY

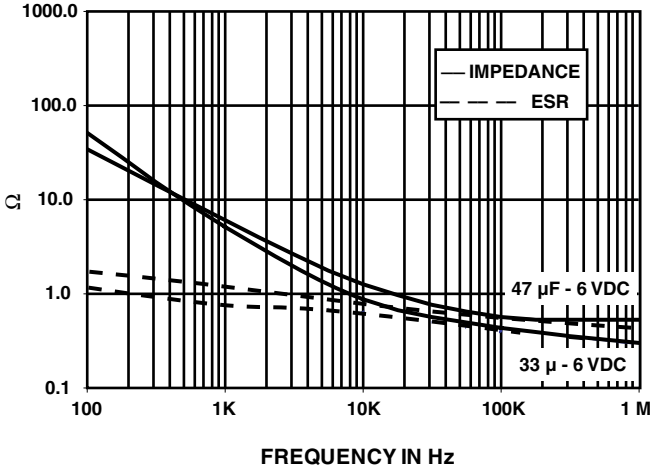
"B" case




"P" case

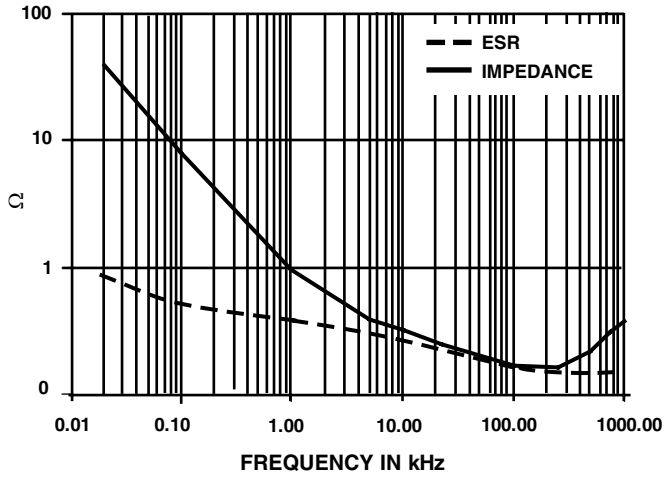



"Q" case

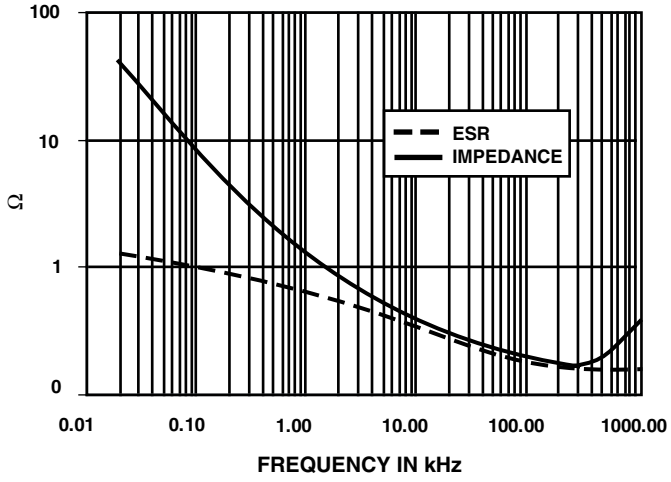


## TYPICAL CURVES AT + 25 °C, IMPEDANCE AND ESR VS. FREQUENCY

**220 µF - 4 V T-Case**
**ESR/Z vs. Freq.**




**220 µF - 4 V S-Case**
**ESR/Z vs. Freq.**



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