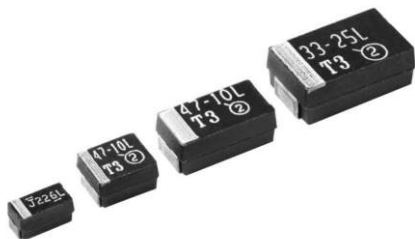


## Solid Tantalum Chip Capacitors TANTAMOUNT® Molded, Industrial, Surface Mount



### FEATURES

- Terminations: 100 % Matte Tin, standard. Tin/lead available
- Compliant Terminations
- Molded case available in four case codes
- Compatible with "High Volume" automatic pick and place equipment
- Optical character recognition qualified
- **CECC**  
30801/005 - 793DX  
30801/009 - CTC3  
30801/011 - CTC4  
30801/801 - 793DE



**RoHS\***  
COMPLIANT

### PERFORMANCE/ELECTRICAL CHARACTERISTICS

**Operating Temperature:** - 55 °C to + 125 °C

**Capacitance Range:** 0.10 µF to 100 µF

**Capacitance Tolerance:** ± 10 %, ± 20 %

**Voltage Rating:** 4 VDC to 50 VDC

| ORDERING INFORMATION  |  |                            |  |                                   |  |
|-----------------------|--|----------------------------|--|-----------------------------------|--|
| 793DX                 | 106  | X0                         | 010  | B                                 | 2WE3   |
| TYPE                  | CAPACITANCE  | CAPACITANCE TOLERANCE      | DC VOLTAGE RATING at + 85 °C   | CASE CODE                         | TERMINATION AND PACKAGING  |
| 793DE<br>CTC3<br>CTC4 | This is expressed in picofarads. The first two digits are the significant figures. The third is the number of zeros to follow. | X9 = ± 10 %<br>X0 = ± 20 % | This is expressed in V. 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. | 2TE3: Matte Tin, 7" (178 mm) reel<br>2WE3: Matte Tin, 13" (330 mm) reel<br>8T: Tin/Lead, 7" (178 mm) reel<br>8W: Tin/Lead, 13" (330 mm) reel |

**Note:**

We reserve the right to supply higher voltage ratings and tighter capacitance tolerance capacitors in the same case size.

Voltage substitutions will be marked with the higher voltage rating.

Effective February 2008, Tin/Lead codes 2T and 2W will no longer be available.

Available Matte Tin and Tin/Lead codes are shown in Termination and Packaging ordering information.

| DIMENSIONS in inches [millimeters] |          |                               |                               |                               |                                |                               |                       |
|------------------------------------|----------|-------------------------------|-------------------------------|-------------------------------|--------------------------------|-------------------------------|-----------------------|
|                                    |          |                               |                               |                               |                                |                               |                       |
| CASE CODE                          | EIA SIZE | L                             | W                             | H                             | P                              | T <sub>w</sub>                | T <sub>H</sub> (MIN.) |
| A                                  | 3216-18  | 0.126 ± 0.008<br>[3.2 ± 0.20] | 0.063 ± 0.008<br>[1.6 ± 0.20] | 0.063 ± 0.008<br>[1.6 ± 0.20] | 0.031 ± 0.012<br>[0.80 ± 0.30] | 0.047 ± 0.004<br>[1.2 ± 0.10] | 0.028<br>[0.70]       |
| B                                  | 3528-21  | 0.138 ± 0.008<br>[3.5 ± 0.20] | 0.110 ± 0.008<br>[2.8 ± 0.20] | 0.075 ± 0.008<br>[1.9 ± 0.20] | 0.031 ± 0.012<br>[0.80 ± 0.30] | 0.087 ± 0.004<br>[2.2 ± 0.10] | 0.028<br>[0.70]       |
| C                                  | 6032-28  | 0.236 ± 0.012<br>[6.0 ± 0.30] | 0.126 ± 0.012<br>[3.2 ± 0.30] | 0.098 ± 0.012<br>[2.5 ± 0.30] | 0.051 ± 0.012<br>[1.3 ± 0.30]  | 0.087 ± 0.004<br>[2.2 ± 0.10] | 0.039<br>[1.0]        |
| D                                  | 7343-31  | 0.287 ± 0.012<br>[7.3 ± 0.30] | 0.170 ± 0.012<br>[4.3 ± 0.30] | 0.110 ± 0.012<br>[2.8 ± 0.30] | 0.051 ± 0.012<br>[1.3 ± 0.30]  | 0.095 ± 0.004<br>[2.4 ± 0.10] | 0.039<br>[1.0]        |

\* Pb containing terminations are not RoHS compliant, exemptions may apply



# 793DX - 793DE - CTC3 - CTC4

Solid Tantalum Chip Capacitors  
TANTAMOUNT® Molded, Industrial, Surface Mount

Vishay Sprague

| RATINGS AND CASE CODES |  |       |      |      |      |      |      |      |
|------------------------|--|-------|------|------|------|------|------|------|
| C <sub>R</sub><br>(μF) | RATED VOLTAGE U <sub>R</sub> (V) (+ 85 °C)     |       |      |      |      |      |      |      |
|                        | 4 V  | 6.3 V | 10 V | 16 V | 20 V | 25 V | 35 V | 50 V |
|                        | CATEGORY VOLTAGE U <sub>C</sub> (V) (+ 125 °C) |       |      |      |      |      |      |      |
|                        | 2.7 V  | 4 V   | 7 V  | 10 V | 13 V | 17 V | 23 V | 33 V |
| 0.10                   |  |       |      |      |      |      | A    | A    |
| 0.15                   |  |       |      |      |      |      | A    | B    |
| 0.22                   |  |       |      |      |      |      | A    | B    |
| 0.33                   |  |       |      |      |      |      | A    | B    |
| 0.47                   |  |       |      |      |      | A    | B    | B    |
| 0.68                   |  |       |      |      | A    | A*   | B    | C    |
| 1.0                    |  |       |      | A    | A*   |      | B    | C    |
| 1.5                    |  |       | A    | A*   |      | B    | C    | D    |
| 2.2                    |  | A     | A*   |      | B    | B*   | C    | D    |
| 3.3                    | A  | A*    |      | B    | B*   |      | C    | D    |
| 4.7                    | A*   |       | B    | B*   |      | C    | D    | D    |
| 6.8                    |  | B     | B*   |      | C    |      | D    |      |
| 10                     | B  | B*    |      | C    |      | D    | D    |      |
| 15                     | B*   |       | C    |      | D    | D    |      |      |
| 22                     |  | C     |      | D    | D    |      |      |      |
| 33                     | C  |       | D    | D    |      |      |      |      |
| 47                     |  | D     | D    |      |      |      |      |      |
| 68                     | D  | D     |      |      |      |      |      |      |
| 100                    | D  |       |      |      |      |      |      |      |

**Note:**

\*Available as 793DE part numbers only

| MARKING   |                       |      |
|---|-----------------------|------|
| <p>Capacitance Code, pF</p> <p>Indicates Lead (Pb)-free</p> <p>Polarity Band</p> <p>Voltage Code</p> <p>A Case</p>  | “A” CASE VOLTAGE CODE |      |
|   | VOLTS                 | CODE |
|   | 4.0                   | G    |
|   | 6.3                   | J    |
|   | 10                    | A    |
|   | 16                    | C    |
|   | 20                    | D    |
|   | 25                    | E    |
| 35  | V                     |      |
| 50  | T                     |      |
| <p>Capacitance μF</p> <p>Voltage</p> <p>Indicates Lead (Pb)-free</p> <p>Polarity Band</p> <p>Data Code</p> <p>Vishay Sprague Logo</p> <p>B, C, D Case</p> |                       |      |

**Marking:**

Capacitor marking includes an anode (+) polarity band, capacitance in microfarads and the voltage rating. “A” Case size capacitors use a letter code for the voltage and EIA capacitance code.

The Vishay Sprague® trademark is shown if space permits. Capacitors rated at 6.3 V shall be marked 6 V.

A manufacturing date code is marked on all capacitors.

Call the factory for further explanation.

# 793DX - 793DE - CTC3 - CTC4

Vishay Sprague

Solid Tantalum Chip Capacitors  
TANTAMOUNT® Molded, Industrial, Surface Mount



| RATINGS AND PART NUMBER REFERENCE            |              |                    |  |                              |  |   |  |
|--|--------------|--------------------|--|------------------------------|--|---|--|
| CAPACITANCE<br>( $\mu$ F)                    | CASE<br>CODE | PART NUMBER        | MAX. DC<br>LEAKAGE<br>at + 25 °C<br>( $\mu$ A) | MAX. DF<br>at + 25 °C<br>(%) | MAX. ESR<br>at + 25 °C<br>100 kHz ( $\Omega$ ) | IMPEDANCE<br>(Z)<br>at + 25 °C<br>100 kHz<br>( $\Omega$ ) | MAX. RIPPLE<br>100 kHz<br>$I_{rms}$<br>(A) |
| <b>4 VDC at + 85 °C, 2.7 VDC at + 125 °C</b> |              |                    |  |                              |  |   |  |
| 3.3  | A            | 793DX335X0004A2TE3 | 0.5  | 6                            | 7.6  | 9.0   | 0.10                                       |
| 3.3  | A            | 793DE335X0004A2TE3 | 0.5  | 6                            | 7.6  | 9.0   | 0.10                                       |
| 3.3  | A            | CTC3335X0004A2TE3  | 0.5  | 6                            | 7.6  | 9.0   | 0.10                                       |
| 3.3  | A            | CTC4335X0004A2TE3  | 0.5  | 6                            | 7.6  | 9.0   | 0.10                                       |
| 4.7  | A            | 793DE475X0004A2TE3 | 0.5  | 6                            | 6.3  | 8.0   | 0.11                                       |
| 10   | B            | 793DX106X0004B2TE3 | 0.5  | 6                            | 3.5  | 4.5   | 0.12                                       |
| 10   | B            | 793DE106X0004B2TE3 | 0.5  | 6                            | 3.5  | 4.5   | 0.12                                       |
| 10   | B            | CTC3106X0004B2TE3  | 0.5  | 6                            | 3.5  | 4.5   | 0.12                                       |
| 10   | B            | CTC4106X0004B2TE3  | 0.5  | 6                            | 3.5  | 4.5   | 0.12                                       |
| 15   | B            | 793DE156X0004B2TE3 | 0.6  | 6                            | 2.9  | 3.8   | 0.17                                       |
| 33   | C            | 793DX336X0004C2TE3 | 1.3  | 6                            | 1.8  | 2.4   | 0.25                                       |
| 33   | C            | 793DE336X0004C2TE3 | 1.3  | 6                            | 1.8  | 2.4   | 0.25                                       |
| 33   | C            | CTC3336X0004C2TE3  | 1.3  | 6                            | 1.8  | 2.4   | 0.25                                       |
| 33   | C            | CTC4336X0004C2TE3  | 1.3  | 6                            | 1.8  | 2.4   | 0.25                                       |
| 68   | D            | 793DX686X0004D2TE3 | 2.7  | 6                            | 0.8  | 1.3   | 0.43                                       |
| 68   | D            | 793DE686X0004D2TE3 | 2.7  | 6                            | 0.8  | 1.3   | 0.43                                       |
| 68   | D            | CTC3686X0004D2TE3  | 2.7  | 6                            | 0.8  | 1.3   | 0.43                                       |
| 68   | D            | CTC4686X0004D2TE3  | 2.7  | 6                            | 0.8  | 1.3   | 0.43                                       |
| 100  | D            | 793DX107X0004D2TE3 | 4.0  | 6                            | 0.7  | 1.0   | 0.46                                       |
| 100  | D            | 793DE107X0004D2TE3 | 4.0  | 6                            | 0.7  | 1.0   | 0.46                                       |
| 100  | D            | CTC3107X0004D2TE3  | 4.0  | 6                            | 0.7  | 1.0   | 0.46                                       |
| 100  | D            | CTC4107X0004D2TE3  | 4.0  | 6                            | 0.7  | 1.0   | 0.46                                       |
| <b>6.3 VDC at + 85 °C, 4 VDC at + 125 °C</b> |              |                    |  |                              |  |   |  |
| 2.2  | A            | 793DX225X06R3A2TE3 | 0.5  | 6                            | 7.6  | 10.0  | 0.10                                       |
| 2.2  | A            | 793DE225X06R3A2TE3 | 0.5  | 6                            | 7.6  | 10.0  | 0.10                                       |
| 2.2  | A            | CTC3225X06R3A2TE3  | 0.5  | 6                            | 7.6  | 10.0  | 0.10                                       |
| 2.2  | A            | CTC4225X06R3A2TE3  | 0.5  | 6                            | 7.6  | 10.0  | 0.10                                       |
| 3.3  | A            | 793DE335X06R3A2TE3 | 0.5  | 6                            | 6.3  | 8.0   | 0.11                                       |
| 6.8  | B            | 793DX685X06R3B2TE3 | 0.5  | 6                            | 3.4  | 4.5   | 0.16                                       |
| 6.8  | B            | 793DE685X06R3B2TE3 | 0.5  | 6                            | 3.4  | 4.5   | 0.16                                       |
| 6.8  | B            | CTC3685X06R3B2TE3  | 0.5  | 6                            | 3.4  | 4.5   | 0.16                                       |
| 6.8  | B            | CTC4685X06R3B2TE3  | 0.5  | 6                            | 3.4  | 4.5   | 0.16                                       |
| 10   | B            | 793DE106X06R3B2TE3 | 0.6  | 6                            | 2.9  | 3.8   | 0.17                                       |
| 22   | C            | 793DX226X06R3C2TE3 | 1.3  | 6                            | 1.8  | 2.4   | 0.25                                       |
| 22   | C            | 793DE226X06R3C2TE3 | 1.3  | 6                            | 1.8  | 2.4   | 0.25                                       |
| 22   | C            | CTC3226X06R3C2TE3  | 1.3  | 6                            | 1.8  | 2.4   | 0.25                                       |
| 22   | C            | CTC4226X06R3C2TE3  | 1.3  | 6                            | 1.8  | 2.4   | 0.25                                       |
| 47   | D            | 793DX476X06R3D2TE3 | 2.8  | 6                            | 0.8  | 1.3   | 0.43                                       |
| 47   | D            | 793DE476X06R3D2TE3 | 2.8  | 6                            | 0.8  | 1.3   | 0.43                                       |
| 47   | D            | CTC3476X06R3D2TE3  | 2.8  | 6                            | 0.8  | 1.3   | 0.43                                       |
| 47   | D            | CTC4476X06R3D2TE3  | 2.8  | 6                            | 0.8  | 1.3   | 0.43                                       |
| 68   | D            | 793DX686X06R3D2TE3 | 4.1  | 6                            | 0.7  | 1.0   | 0.46                                       |
| 68   | D            | 793DE686X06R3D2TE3 | 4.1  | 6                            | 0.7  | 1.0   | 0.46                                       |
| 68   | D            | CTC3686X06R3D2TE3  | 4.1  | 6                            | 0.7  | 1.0   | 0.46                                       |
| 68   | D            | CTC4686X06R3D2TE3  | 4.1  | 6                            | 0.7  | 1.0   | 0.46                                       |

**Notes:**

- For 10 % tolerance, specify X9
- For 20 % tolerance, specify X0



# 793DX - 793DE - CTC3 - CTC4

Solid Tantalum Chip Capacitors  
TANTAMOUNT® Molded, Industrial, Surface Mount

Vishay Sprague

| RATINGS AND PART NUMBER REFERENCE            |           |                    |                                 |                        |                                 |                                      |  |
|--|-----------|--------------------|---------------------------------|------------------------|---------------------------------|--------------------------------------|--|
| CAPACITANCE (µF)                             | CASE CODE | PART NUMBER        | MAX. DC LEAKAGE at + 25 °C (µA) | MAX. DF at + 25 °C (%) | MAX. ESR at + 25 °C 100 kHz (Ω) | IMPEDANCE (Z) at + 25 °C 100 kHz (Ω) | MAX. RIPPLE 100 kHz I <sub>rms</sub> (A) |
| <b>10 VDC at + 85 °C, 7 VDC at + 125 °C</b>  |           |                    |                                 |                        |                                 |                                      |  |
| 1.5  | A         | 793DX155X0010A2TE3 | 0.5                             | 6                      | 8.0                             | 10.5                                 | 0.10                                     |
| 1.5  | A         | 793DE155X0010A2TE3 | 0.5                             | 6                      | 8.0                             | 10.5                                 | 0.10                                     |
| 1.5  | A         | CTC3155X0010A2TE3  | 0.5                             | 6                      | 8.0                             | 10.5                                 | 0.10                                     |
| 1.5  | A         | CTC4155X0010A2TE3  | 0.5                             | 6                      | 8.0                             | 10.5                                 | 0.10                                     |
| 2.2  | A         | 793DE225X0010A2TE3 | 0.5                             | 6                      | 6.3                             | 8.0                                  | 0.11                                     |
| 4.7  | B         | 793DX475X0010B2TE3 | 0.5                             | 6                      | 3.4                             | 4.5                                  | 0.16                                     |
| 4.7  | B         | 793DE475X0010B2TE3 | 0.5                             | 6                      | 3.4                             | 4.5                                  | 0.16                                     |
| 4.7  | B         | CTC3475X0010B2TE3  | 0.5                             | 6                      | 3.4                             | 4.5                                  | 0.16                                     |
| 4.7  | B         | CTC4475X0010B2TE3  | 0.5                             | 6                      | 3.4                             | 4.5                                  | 0.16                                     |
| 6.8  | B         | 793DE685X0010B2TE3 | 0.7                             | 6                      | 2.9                             | 3.8                                  | 0.17                                     |
| 15   | C         | 793DX156X0010C2TE3 | 1.5                             | 6                      | 1.8                             | 2.5                                  | 0.25                                     |
| 15   | C         | 793DE156X0010C2TE3 | 1.5                             | 6                      | 1.8                             | 2.5                                  | 0.25                                     |
| 15   | C         | CTC3156X0010C2TE3  | 1.5                             | 6                      | 1.8                             | 2.5                                  | 0.25                                     |
| 15   | C         | CTC4156X0010C2TE3  | 1.5                             | 6                      | 1.8                             | 2.5                                  | 0.25                                     |
| 33   | D         | 793DX336X0010D2TE3 | 3.3                             | 6                      | 0.8                             | 1.3                                  | 0.43                                     |
| 33   | D         | 793DE336X0010D2TE3 | 3.3                             | 6                      | 0.8                             | 1.3                                  | 0.43                                     |
| 33   | D         | CTC3336X0010D2TE3  | 3.3                             | 6                      | 0.8                             | 1.3                                  | 0.43                                     |
| 33   | D         | CTC4336X0010D2TE3  | 3.3                             | 6                      | 0.8                             | 1.3                                  | 0.43                                     |
| 47   | D         | 793DX476X0010D2TE3 | 4.7                             | 6                      | 0.7                             | 1.0                                  | 0.46                                     |
| 47   | D         | 793DE476X0010D2TE3 | 4.7                             | 6                      | 0.7                             | 1.0                                  | 0.46                                     |
| 47   | D         | CTC3476X0010D2TE3  | 4.7                             | 6                      | 0.7                             | 1.0                                  | 0.46                                     |
| 47   | D         | CTC4476X0010D2TE3  | 4.7                             | 6                      | 0.7                             | 1.0                                  | 0.46                                     |
| <b>16 VDC at + 85 °C, 10 VDC at + 125 °C</b> |           |                    |                                 |                        |                                 |                                      |  |
| 1.0  | A         | 793DX105X0016A2TE3 | 0.5                             | 4                      | 9.3                             | 11.0                                 | 0.09                                     |
| 1.0  | A         | 793DE105X0016A2TE3 | 0.5                             | 4                      | 9.3                             | 11.0                                 | 0.09                                     |
| 1.0  | A         | CTC3105X0016A2TE3  | 0.5                             | 4                      | 9.3                             | 11.0                                 | 0.09                                     |
| 1.0  | A         | CTC4105X0016A2TE3  | 0.5                             | 4                      | 9.3                             | 11.0                                 | 0.09                                     |
| 1.5  | A         | 793DE155X0016A2TE3 | 0.5                             | 6                      | 6.7                             | 9.0                                  | 0.11                                     |
| 3.3  | B         | 793DX335X0016B2TE3 | 0.5                             | 6                      | 3.5                             | 5.0                                  | 0.16                                     |
| 3.3  | B         | 793DE335X0016B2TE3 | 0.5                             | 6                      | 3.5                             | 5.0                                  | 0.16                                     |
| 3.3  | B         | CTC3335X0016B2TE3  | 0.5                             | 6                      | 3.5                             | 5.0                                  | 0.16                                     |
| 3.3  | B         | CTC4335X0016B2TE3  | 0.5                             | 6                      | 3.5                             | 5.0                                  | 0.16                                     |
| 4.7  | B         | 793DE475X0016B2TE3 | 0.8                             | 6                      | 2.9                             | 4.0                                  | 0.17                                     |
| 10   | C         | 793DX106X0016C2TE3 | 1.6                             | 6                      | 1.8                             | 2.5                                  | 0.25                                     |
| 10   | C         | 793DE106X0016C2TE3 | 1.6                             | 6                      | 1.8                             | 2.5                                  | 0.25                                     |
| 10   | C         | CTC3106X0016C2TE3  | 1.6                             | 6                      | 1.8                             | 2.5                                  | 0.25                                     |
| 10   | C         | CTC4106X0016C2TE3  | 1.6                             | 6                      | 1.8                             | 2.5                                  | 0.25                                     |
| 22   | D         | 793DX226X0016D2TE3 | 3.5                             | 6                      | 0.8                             | 1.5                                  | 0.43                                     |
| 22   | D         | 793DE226X0016D2TE3 | 3.5                             | 6                      | 0.8                             | 1.5                                  | 0.43                                     |
| 22   | D         | CTC3226X0016D2TE3  | 3.5                             | 6                      | 0.8                             | 1.5                                  | 0.43                                     |
| 22   | D         | CTC4226X0016D2TE3  | 3.5                             | 6                      | 0.8                             | 1.5                                  | 0.43                                     |
| 33   | D         | 793DX336X0016D2TE3 | 5.3                             | 6                      | 0.7                             | 1.2                                  | 0.46                                     |
| 33   | D         | 793DE336X0016D2TE3 | 5.3                             | 6                      | 0.7                             | 1.2                                  | 0.46                                     |
| 33   | D         | CTC3336X0016D2TE3  | 5.3                             | 6                      | 0.7                             | 1.2                                  | 0.46                                     |
| 33   | D         | CTC4336X0016D2TE3  | 5.3                             | 6                      | 0.7                             | 1.2                                  | 0.46                                     |

**Notes:**

- For 10 % tolerance, specify X9
- For 20 % tolerance, specify X0

# 793DX - 793DE - CTC3 - CTC4



Vishay Sprague

Solid Tantalum Chip Capacitors  
TANTAMOUNT® Molded, Industrial, Surface Mount

| RATINGS AND PART NUMBER REFERENCE            |              |                    |  |                              |  |   |  |
|--|--------------|--------------------|--|------------------------------|--|---|--|
| CAPACITANCE<br>( $\mu$ F)                    | CASE<br>CODE | PART NUMBER        | MAX. DC<br>LEAKAGE<br>at + 25 °C<br>( $\mu$ A) | MAX. DF<br>at + 25 °C<br>(%) | MAX. ESR<br>at + 25 °C<br>100 kHz ( $\Omega$ ) | IMPEDANCE<br>(Z)<br>at + 25 °C<br>100 kHz<br>( $\Omega$ ) | MAX. RIPPLE<br>100 kHz<br>$I_{rms}$<br>(A) |
| <b>20 VDC at + 85 °C, 13 VDC at + 125 °C</b> |              |                    |  |                              |  |   |  |
| 0.68   | A            | 793DX684X0020A2TE3 | 0.5  | 4                            | 10   | 13.0  | 0.09                                       |
| 0.68   | A            | 793DE684X0020A2TE3 | 0.5  | 4                            | 10   | 13.0  | 0.09                                       |
| 0.68   | A            | CTC3684X0020A2TE3  | 0.5  | 4                            | 10   | 13.0  | 0.09                                       |
| 0.68   | A            | CTC4684X0020A2TE3  | 0.5  | 4                            | 10   | 13.0  | 0.09                                       |
| 1.0  | A            | 793DE105X0020A2TE3 | 0.5  | 4                            | 8.4  | 11.0  | 0.09                                       |
| 2.2  | B            | 793DX225X0020B2TE3 | 0.5  | 6                            | 3.5  | 6.0   | 0.16                                       |
| 2.2  | B            | 793DE225X0020B2TE3 | 0.5  | 6                            | 3.5  | 6.0   | 0.16                                       |
| 2.2  | B            | CTC3225X0020B2TE3  | 0.5  | 6                            | 3.5  | 6.0   | 0.16                                       |
| 2.2  | B            | CTC4225X0020B2TE3  | 0.5  | 6                            | 3.5  | 6.0   | 0.16                                       |
| 3.3  | B            | 793DE335X0020B2TE3 | 0.7  | 6                            | 3.0  | 4.5   | 0.17                                       |
| 6.8  | C            | 793DX685X0020C2TE3 | 1.4  | 6                            | 1.9  | 2.5   | 0.24                                       |
| 6.8  | C            | 793DE685X0020C2TE3 | 1.4  | 6                            | 1.9  | 2.5   | 0.24                                       |
| 6.8  | C            | CTC3685X0020C2TE3  | 1.4  | 6                            | 1.9  | 2.5   | 0.24                                       |
| 6.8  | C            | CTC4685X0020C2TE3  | 1.4  | 6                            | 1.9  | 2.5   | 0.24                                       |
| 15   | D            | 793DX156X0020D2TE3 | 3.0  | 6                            | 0.9  | 1.5   | 0.41                                       |
| 15   | D            | 793DE156X0020D2TE3 | 3.0  | 6                            | 0.9  | 1.5   | 0.41                                       |
| 15   | D            | CTC3156X0020D2TE3  | 3.0  | 6                            | 0.9  | 1.5   | 0.41                                       |
| 15   | D            | CTC4156X0020D2TE3  | 3.0  | 6                            | 0.9  | 1.5   | 0.41                                       |
| 22   | D            | 793DX226X0020D2TE3 | 4.4  | 6                            | 0.7  | 1.2   | 0.46                                       |
| 22   | D            | 793DE226X0020D2TE3 | 4.4  | 6                            | 0.7  | 1.2   | 0.46                                       |
| 22   | D            | CTC3226X0020D2TE3  | 4.4  | 6                            | 0.7  | 1.2   | 0.46                                       |
| 22   | D            | CTC4226X0020D2TE3  | 4.4  | 6                            | 0.7  | 1.2   | 0.46                                       |
| <b>25 VDC at + 85 °C, 16 VDC at + 125 °C</b> |              |                    |  |                              |  |   |  |
| 0.47   | A            | 793DX474X0025A2TE3 | 0.5  | 4                            | 12   | 14.0  | 0.08                                       |
| 0.47   | A            | 793DE474X0025A2TE3 | 0.5  | 4                            | 12   | 14.0  | 0.08                                       |
| 0.47   | A            | CTC3474X0025A2TE3  | 0.5  | 4                            | 12   | 14.0  | 0.08                                       |
| 0.47   | A            | CTC4474X0025A2TE3  | 0.5  | 4                            | 12   | 14.0  | 0.08                                       |
| 0.68   | A            | 793DE474X0025A2TE3 | 0.5  | 4                            | 8.4  | 11.0  | 0.09                                       |
| 1.5  | B            | 793DX155X0025A2TE3 | 0.5  | 6                            | 4.6  | 7.0   | 0.14                                       |
| 1.5  | B            | 793DX155X0025A2TE3 | 0.5  | 6                            | 4.6  | 7.0   | 0.14                                       |
| 1.5  | B            | CTC3155X0025A2TE3  | 0.5  | 6                            | 4.6  | 7.0   | 0.14                                       |
| 1.5  | B            | CTC4155X0025A2TE3  | 0.5  | 6                            | 4.6  | 7.0   | 0.14                                       |
| 2.2  | B            | 793DE225X0025B2TE3 | 0.6  | 6                            | 3.8  | 5.0   | 0.15                                       |
| 4.7  | C            | 793DX475X0025C2TE3 | 1.2  | 6                            | 2.0  | 2.8   | 0.24                                       |
| 4.7  | C            | 793DE475X0025C2TE3 | 1.2  | 6                            | 2.0  | 2.8   | 0.24                                       |
| 4.7  | C            | CTC3475X0025C2TE3  | 1.2  | 6                            | 2.0  | 2.8   | 0.24                                       |
| 4.7  | C            | CTC4475X0025C2TE3  | 1.2  | 6                            | 2.0  | 2.8   | 0.24                                       |
| 10   | D            | 793DX106X0025D2TE3 | 2.5  | 6                            | 1.0  | 1.5   | 0.39                                       |
| 10   | D            | 793DE106X0025D2TE3 | 2.5  | 6                            | 1.0  | 1.5   | 0.39                                       |
| 10   | D            | CTC3106X0025D2TE3  | 2.5  | 6                            | 1.0  | 1.5   | 0.39                                       |
| 10   | D            | CTC4106X0025D2TE3  | 2.5  | 6                            | 1.0  | 1.5   | 0.39                                       |
| 15   | D            | 793DX156X0025D2TE3 | 3.8  | 6                            | 0.8  | 1.2   | 0.43                                       |
| 15   | D            | 793DE156X0025D2TE3 | 3.8  | 6                            | 0.8  | 1.2   | 0.43                                       |
| 15   | D            | CTC3156X0025D2TE3  | 3.8  | 6                            | 0.8  | 1.2   | 0.43                                       |
| 15   | D            | CTC4156X0025D2TE3  | 3.8  | 6                            | 0.8  | 1.2   | 0.43                                       |

**Notes:**

- For 10 % tolerance, specify X9
- For 20 % tolerance, specify X0



# 793DX - 793DE - CTC3 - CTC4

Solid Tantalum Chip Capacitors  
TANTAMOUNT® Molded, Industrial, Surface Mount

Vishay Sprague

| RATINGS AND PART NUMBER REFERENCE     |              |                     |  |                              |  |   |  |
|---------------------------------------|--------------|---------------------|--|------------------------------|--|---|--|
| CAPACITANCE<br>( $\mu$ F)             | CASE<br>CODE | PART NUMBER         | MAX. DC<br>LEAKAGE<br>at + 25 °C<br>( $\mu$ A) | MAX. DF<br>at + 25 °C<br>(%) | MAX. ESR<br>at + 25 °C<br>100 kHz ( $\Omega$ ) | IMPEDANCE<br>(Z)<br>at + 25 °C<br>100 kHz<br>( $\Omega$ ) | MAX. RIPPLE<br>100 kHz<br>$I_{rms}$<br>(A) |
| 35 VDC at + 85 °C, 23 VDC at + 125 °C |              |                     |  |                              |  |   |  |
| 0.10                                  | A            | 793DX104X0035A2TE3  | 0.5  | 4                            | 20   | 28.0  | 0.06                                       |
| 0.10                                  | A            | 793DE104X0035A2TE3  | 0.5  | 4                            | 20   | 28.0  | 0.06                                       |
| 0.10                                  | A            | CTC3104X0035A2TE3   | 0.5  | 4                            | 20   | 28.0  | 0.06                                       |
| 0.10                                  | A            | CTC4104X0035A2TE3   | 0.5  | 4                            | 20   | 28.0  | 0.06                                       |
| 0.15                                  | A            | 793DX154X0035A2TE3  | 0.5  | 4                            | 18   | 23.0  | 0.07                                       |
| 0.15                                  | A            | 793DE154X0035A2TE3  | 0.5  | 4                            | 18   | 23.0  | 0.07                                       |
| 0.15                                  | A            | CTC3154X0035A2TE3   | 0.5  | 4                            | 18   | 23.0  | 0.07                                       |
| 0.15                                  | A            | CTC4154X0035A2TE3   | 0.5  | 4                            | 18   | 23.0  | 0.07                                       |
| 0.22                                  | A            | 793DX224X0035A2TE3  | 0.5  | 4                            | 15   | 19.0  | 0.07                                       |
| 0.22                                  | A            | 793DE224X0035A2TE3  | 0.5  | 4                            | 15   | 19.0  | 0.07                                       |
| 0.22                                  | A            | CTC3224X0035A2TE3   | 0.5  | 4                            | 15   | 19.0  | 0.07                                       |
| 0.22                                  | A            | CTC4224X0035A2TE3   | 0.5  | 4                            | 15   | 19.0  | 0.07                                       |
| 0.33                                  | A            | 793DX334X0035A2TE3  | 0.5  | 4                            | 13   | 15.0  | 0.08                                       |
| 0.33                                  | A            | 793DE334X0035A2TE3  | 0.5  | 4                            | 13   | 15.0  | 0.08                                       |
| 0.33                                  | A            | CTC3334X0035A2TE3   | 0.5  | 4                            | 13   | 15.0  | 0.08                                       |
| 0.33                                  | A            | CTC4334X0035A2TE3   | 0.5  | 4                            | 13   | 15.0  | 0.08                                       |
| 0.47                                  | B            | 793DX474X0035B2TE3  | 0.5  | 4                            | 10   | 11.0  | 0.09                                       |
| 0.47                                  | B            | 793DE474X0035B2TE3  | 0.5  | 4                            | 10   | 11.0  | 0.09                                       |
| 0.47                                  | B            | CTC3474X0035B2TE3   | 0.5  | 4                            | 10   | 11.0  | 0.09                                       |
| 0.47                                  | B            | CTC4474X0035B2TE3   | 0.5  | 4                            | 10   | 11.0  | 0.09                                       |
| 0.68                                  | B            | 793DX684X0035B2TE3  | 0.5  | 4                            | 6.5  | 8.0   | 0.11                                       |
| 0.68                                  | B            | 793DE684X0035B2TE3  | 0.5  | 4                            | 6.5  | 8.0   | 0.11                                       |
| 0.68                                  | B            | CTC3684X0035B2TE3   | 0.5  | 4                            | 6.5  | 8.0   | 0.11                                       |
| 0.68                                  | B            | CTC4684X0035B2TE3   | 0.5  | 4                            | 6.5  | 8.0   | 0.11                                       |
| 1.0                                   | B            | 793DX105X0035B2TE3  | 0.5  | 4                            | 5.0  | 7.0   | 0.13                                       |
| 1.0                                   | B            | 793DE105X0035B2TE3  | 0.5  | 4                            | 5.0  | 7.0   | 0.13                                       |
| 1.0                                   | B            | CTC3105X0035B2TE3   | 0.5  | 4                            | 5.0  | 7.0   | 0.13                                       |
| 1.0                                   | B            | CTC4105X0035B2TE3   | 0.5  | 4                            | 5.0  | 7.0   | 0.13                                       |
| 1.5                                   | C            | 793DX155X0035C2TE3  | 0.5  | 6                            | 3.8  | 6.0   | 0.17                                       |
| 1.5                                   | C            | 793DE155X0035C2TE3  | 0.5  | 6                            | 3.8  | 6.0   | 0.17                                       |
| 1.5                                   | C            | CTC3155X0035C2TE3   | 0.5  | 6                            | 3.8  | 6.0   | 0.17                                       |
| 1.5                                   | C            | CTC4155X0035C2TE3   | 0.5  | 6                            | 3.8  | 6.0   | 0.17                                       |
| 2.2                                   | C            | 793DX225X0035C2TE3  | 0.8  | 6                            | 2.9  | 4.0   | 0.20                                       |
| 2.2                                   | C            | 793DE225X0035C2TE3  | 0.8  | 6                            | 2.9  | 4.0   | 0.20                                       |
| 2.2                                   | C            | CTC3225X0035C2TE3   | 0.8  | 6                            | 2.9  | 4.0   | 0.20                                       |
| 2.2                                   | C            | CTC4225X0035C2TE3   | 0.8  | 6                            | 2.9  | 4.0   | 0.20                                       |
| 3.3                                   | C            | 793DX335X0035C2TE3  | 1.2  | 6                            | 2.1  | 3.0   | 0.23                                       |
| 3.3                                   | C            | 793DE335X0035C2TE3  | 1.2  | 6                            | 2.1  | 3.0   | 0.23                                       |
| 3.3                                   | C            | CTC3335X0035C2TE3   | 1.2  | 6                            | 2.1  | 3.0   | 0.23                                       |
| 3.3                                   | C            | CTC4335X0035C2TE3   | 1.2  | 6                            | 2.1  | 3.0   | 0.23                                       |
| 4.7                                   | D            | 793DX475X0035D2TE3  | 1.6  | 6                            | 1.3  | 1.8   | 0.34                                       |
| 4.7                                   | D            | 793DE475X0035D2TE3  | 1.6  | 6                            | 1.3  | 1.8   | 0.34                                       |
| 4.7                                   | D            | CTC3475X0035D2TE3   | 1.6  | 6                            | 1.3  | 1.8   | 0.34                                       |
| 4.7                                   | D            | CTC4475X0035D2TE3   | 1.6  | 6                            | 1.3  | 1.8   | 0.34                                       |
| 6.8                                   | D            | 793DX685X00035D2TE3 | 2.4  | 6                            | 1.1  | 1.5   | 0.37                                       |
| 6.8                                   | D            | 793DE685X00035D2TE3 | 2.4  | 6                            | 1.1  | 1.5   | 0.37                                       |
| 6.8                                   | D            | CTC3685X00035D2TE3  | 2.4  | 6                            | 1.1  | 1.5   | 0.37                                       |
| 6.8                                   | D            | CTC4685X00035D2TE3  | 2.4  | 6                            | 1.1  | 1.5   | 0.37                                       |
| 10                                    | D            | 793DX106X0035D2TE3  | 3.5  | 6                            | 0.8  | 1.2   | 0.43                                       |
| 10                                    | D            | 793DE106X0035D2TE3  | 3.5  | 6                            | 0.8  | 1.2   | 0.43                                       |
| 10                                    | D            | CTC3106X0035D2TE3   | 3.5  | 6                            | 0.8  | 1.2   | 0.43                                       |
| 10                                    | D            | CTC4106X0035D2TE3   | 3.5  | 6                            | 0.8  | 1.2   | 0.43                                       |

**Notes:**

- For 10 % tolerance, specify X9
- For 20 % tolerance, specify X0

# 793DX - 793DE - CTC3 - CTC4

Vishay Sprague

Solid Tantalum Chip Capacitors  
TANTAMOUNT® Molded, Industrial, Surface Mount



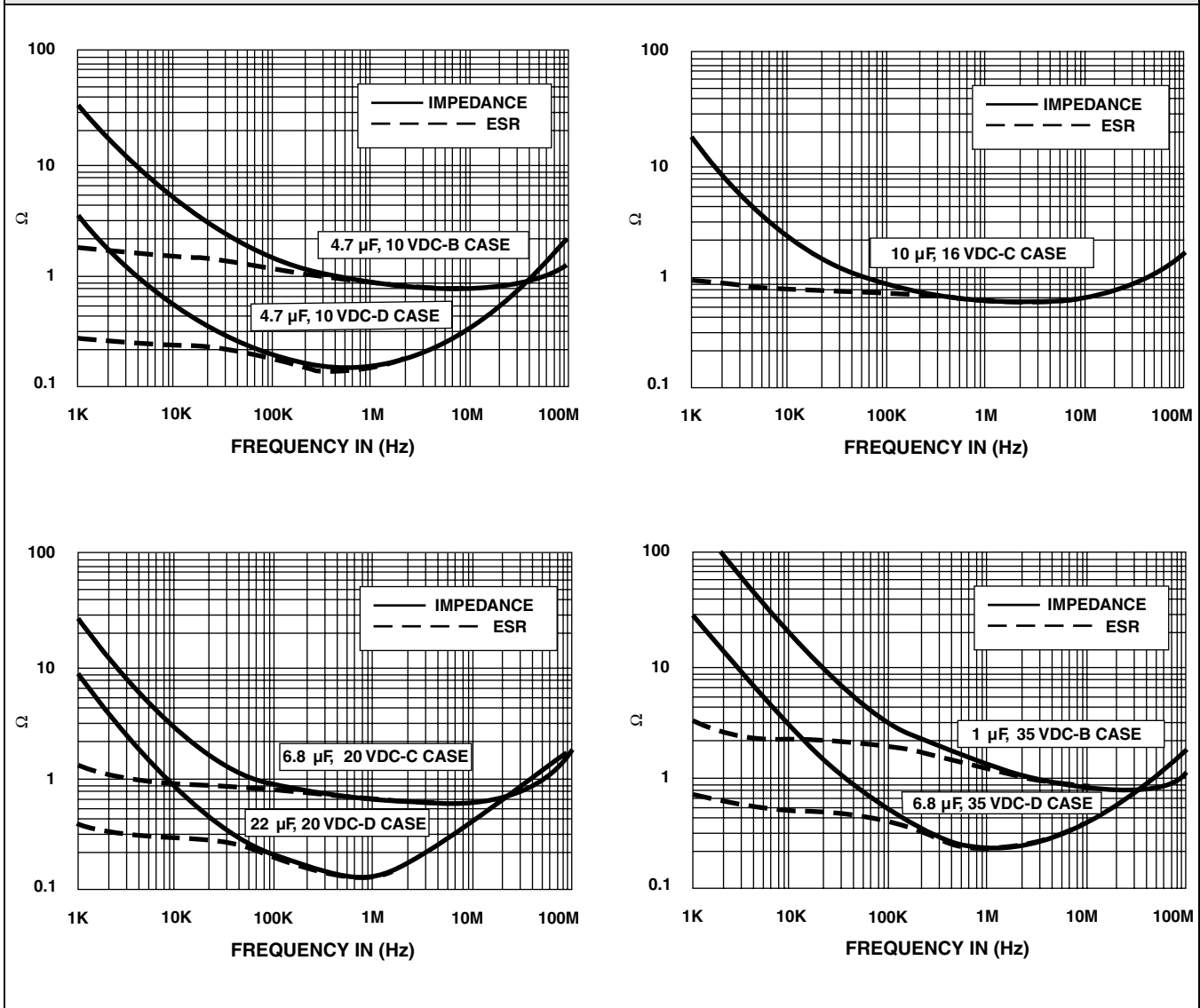
| RATINGS AND PART NUMBER REFERENCE     |              |                     |  |                              |  |   |  |
|---------------------------------------|--------------|---------------------|--|------------------------------|--|---|--|
| CAPACITANCE<br>( $\mu$ F)             | CASE<br>CODE | PART NUMBER         | MAX. DC<br>LEAKAGE<br>at + 25 °C<br>( $\mu$ A) | MAX. DF<br>at + 25 °C<br>(%) | MAX. ESR<br>at + 25 °C<br>100 kHz ( $\Omega$ ) | IMPEDANCE<br>(Z)<br>at + 25 °C<br>100 kHz<br>( $\Omega$ ) | MAX. RIPPLE<br>100 kHz<br>$I_{rms}$<br>(A) |
| 50 VDC at + 85 °C, 33 VDC at + 125 °C |              |                     |  |                              |  |   |  |
| 0.10                                  | A            | 793DX104X0050A2TE3  | 0.5  | 4                            | 19   | 27.0  | 0.06                                       |
| 0.10                                  | A            | 793DE104X0050A2TE3  | 0.5  | 4                            | 19   | 27.0  | 0.06                                       |
| 0.10                                  | A            | CTC3104X0050A2TE3   | 0.5  | 4                            | 19   | 27.0  | 0.06                                       |
| 0.10                                  | A            | CTC4104X0050A2TE3   | 0.5  | 4                            | 19   | 27.0  | 0.06                                       |
| 0.15                                  | B            | 793DX154X0050B2TE3  | 0.5  | 4                            | 14   | 22.0  | 0.08                                       |
| 0.15                                  | B            | 793DE154X0050B2TE3  | 0.5  | 4                            | 14   | 22.0  | 0.08                                       |
| 0.15                                  | B            | CTC3154X0050B2TE3   | 0.5  | 4                            | 14   | 22.0  | 0.08                                       |
| 0.15                                  | B            | CTC4154X0050B2TE3   | 0.5  | 4                            | 14   | 22.0  | 0.08                                       |
| 0.22                                  | B            | 793DX224X00050B2TE3 | 0.5  | 4                            | 12   | 18.0  | 0.08                                       |
| 0.22                                  | B            | 793DE224X00050B2TE3 | 0.5  | 4                            | 12   | 18.0  | 0.08                                       |
| 0.22                                  | B            | CTC3224X00050B2TE3  | 0.5  | 4                            | 12   | 18.0  | 0.08                                       |
| 0.22                                  | B            | CTC4224X00050B2TE3  | 0.5  | 4                            | 12   | 18.0  | 0.08                                       |
| 0.33                                  | B            | 793DX334X0050B2TE3  | 0.5  | 4                            | 10   | 14.0  | 0.09                                       |
| 0.33                                  | B            | 793DE334X0050B2TE3  | 0.5  | 4                            | 10   | 14.0  | 0.09                                       |
| 0.33                                  | B            | CTC3334X0050B2TE3   | 0.5  | 4                            | 10   | 14.0  | 0.09                                       |
| 0.33                                  | B            | CTC4334X0050B2TE3   | 0.5  | 4                            | 10   | 14.0  | 0.09                                       |
| 0.47                                  | C            | 793DX474X0050C2TE3  | 0.5  | 4                            | 6.7  | 9.0   | 0.13                                       |
| 0.47                                  | C            | 793DE474X0050C2TE3  | 0.5  | 4                            | 6.7  | 9.0   | 0.13                                       |
| 0.47                                  | C            | CTC3474X0050C2TE3   | 0.5  | 4                            | 6.7  | 9.0   | 0.13                                       |
| 0.47                                  | C            | CTC4474X0050C2TE3   | 0.5  | 4                            | 6.7  | 9.0   | 0.13                                       |
| 0.68                                  | C            | 793DX684X0050C2TE3  | 0.5  | 4                            | 5.9  | 7.0   | 0.14                                       |
| 0.68                                  | C            | 793DE684X0050C2TE3  | 0.5  | 4                            | 5.9  | 7.0   | 0.14                                       |
| 0.68                                  | C            | CTC3684X0050C2TE3   | 0.5  | 4                            | 5.9  | 7.0   | 0.14                                       |
| 0.68                                  | C            | CTC4684X0050C2TE3   | 0.5  | 4                            | 5.9  | 7.0   | 0.14                                       |
| 1.0                                   | C            | 793DX105X0050C2TE3  | 0.5  | 4                            | 4.6  | 6.0   | 0.16                                       |
| 1.0                                   | C            | 793DE105X0050C2TE3  | 0.5  | 4                            | 4.6  | 6.0   | 0.16                                       |
| 1.0                                   | C            | CTC3105X0050C2TE3   | 0.5  | 4                            | 4.6  | 6.0   | 0.16                                       |
| 1.0                                   | C            | CTC4105X0050C2TE3   | 0.5  | 4                            | 4.6  | 6.0   | 0.16                                       |
| 1.5                                   | D            | 793DX155X0050D2TE3  | 0.8  | 6                            | 2.9  | 5.0   | 0.25                                       |
| 1.5                                   | D            | 793DE155X0050D2TE3  | 0.8  | 6                            | 2.9  | 5.0   | 0.25                                       |
| 1.5                                   | D            | CTC3155X0050D2TE3   | 0.8  | 6                            | 2.9  | 5.0   | 0.25                                       |
| 1.5                                   | D            | CTC4155X0050D2TE3   | 0.8  | 6                            | 2.9  | 5.0   | 0.25                                       |
| 2.2                                   | D            | 793DX225X0050D2TE3  | 1.1  | 6                            | 2.1  | 3.5   | 0.27                                       |
| 2.2                                   | D            | 793DE225X0050D2TE3  | 1.1  | 6                            | 2.1  | 3.5   | 0.27                                       |
| 2.2                                   | D            | CTC3225X0050D2TE3   | 1.1  | 6                            | 2.1  | 3.5   | 0.27                                       |
| 2.2                                   | D            | CTC4225X0050D2TE3   | 1.1  | 6                            | 2.1  | 3.5   | 0.27                                       |
| 3.3                                   | D            | 793DX335X00050D2TE3 | 1.7  | 6                            | 1.7  | 2.0   | 0.30                                       |
| 3.3                                   | D            | 793DE335X00050D2TE3 | 1.7  | 6                            | 1.7  | 2.0   | 0.30                                       |
| 3.3                                   | D            | CTC3335X00050D2TE3  | 1.7  | 6                            | 1.7  | 2.0   | 0.30                                       |
| 3.3                                   | D            | CTC4335X00050D2TE3  | 1.7  | 6                            | 1.7  | 2.0   | 0.30                                       |
| 4.7                                   | D            | 793DX475X0050D2TE3  | 2.4  | 6                            | 1.2  | 1.5   | 0.37                                       |
| 4.7                                   | D            | 793DE475X0050D2TE3  | 2.4  | 6                            | 1.2  | 1.5   | 0.37                                       |
| 4.7                                   | D            | CTC3475X0050D2TE3   | 2.4  | 6                            | 1.2  | 1.5   | 0.37                                       |
| 4.7                                   | D            | CTC4475X0050D2TE3   | 2.4  | 6                            | 1.2  | 1.5   | 0.37                                       |

**Notes:**

- For 10 % tolerance, specify X9
- For 20 % tolerance, specify X0



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







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