

# Solid Tantalum Chip Capacitors, TANTAMOUNT<sup>®</sup>, Conformal Coated



## FEATURES

- Pad compatible with 194D and MIL-PRF-55365/4 (CWR06)
- 8 mm, 12 mm 16 mm tape to EIA-481 and reeling per IEC 286-3. 7" [178 mm] standard 13" [330 mm] available
- Mounting: Surface mount
- Terminations: 100 % tin (2) standard, tin/lead available
- Material categorization: For definitions please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS\***  
COMPLIANT

## Note

\* Lead (Pb)-containing terminations are not RoHS-compliant. Exemptions may apply.

## PERFORMANCE CHARACTERISTICS

[www.vishay.com/doc?40088](http://www.vishay.com/doc?40088)

**Operating Temperature:** - 55 °C to + 125 °C  
(above 85 °C, voltage derating is required)

**Capacitance Range:** 1.0 μF to 270 μF

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

**Voltage Rating:** 4 V<sub>DC</sub> to 50 V<sub>DC</sub>

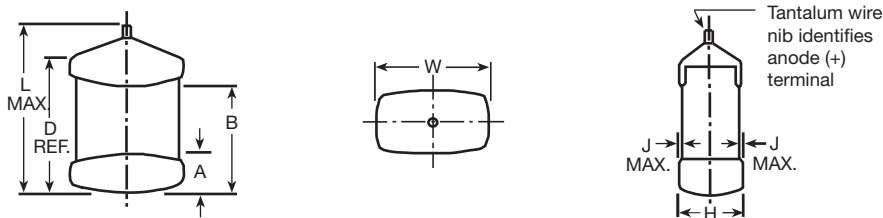
## ORDERING INFORMATION

| 695D<br>TYPE | 475<br>CAPACITANCE   | X0<br>CAPACITANCE TOLERANCE       | 004<br>DC VOLTAGE RATING AT + 85 °C  | A<br>CASE CODE                   | 2<br>TERMINATION  | T<br>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. | <b>X0 = ± 20 %</b><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 | <b>2 = 100 % tin</b><br>4 = Gold plated<br>8 = Solder plated (60/40)<br>Special order | <b>T = Tape and reel</b><br><b>7" [178 mm] reel</b><br>W = 13" [330 mm] reel<br>See tape and reel specifications |

## Notes

- 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]



| CASE CODE | L (MAX.)       | D (REF.)        | W                              | H                              | A                               | B                              | J (MAX.)        |
|-----------|----------------|-----------------|--------------------------------|--------------------------------|---------------------------------|--------------------------------|-----------------|
| A         | 0.134<br>[3.4] | 0.100<br>[2.54] | 0.050 ± 0.015<br>[1.27 ± 0.38] | 0.050 ± 0.015<br>[1.27 ± 0.38] | 0.023 ± 0.010<br>[0.584 ± 0.25] | 0.067 ± 0.015<br>[1.70 ± 0.38] | 0.004<br>[0.10] |
| B         | 0.185<br>[4.7] | 0.150<br>[3.81] | 0.050 ± 0.015<br>[1.27 ± 0.38] | 0.050 ± 0.015<br>[1.27 ± 0.38] | 0.040 ± 0.015<br>[1.02 ± 0.38]  | 0.120 ± 0.015<br>[3.05 ± 0.38] | 0.004<br>[0.10] |
| D         | 0.185<br>[4.7] | 0.140<br>[3.56] | 0.095 ± 0.015<br>[2.41 ± 0.38] | 0.050 ± 0.015<br>[1.27 ± 0.38] | 0.040 ± 0.015<br>[1.02 ± 0.38]  | 0.110 ± 0.020<br>[2.79 ± 0.51] | 0.004<br>[0.10] |
| E         | 0.236<br>[6.0] | 0.200<br>[5.08] | 0.095 ± 0.015<br>[2.41 ± 0.38] | 0.050 ± 0.015<br>[1.27 ± 0.38] | 0.040 ± 0.015<br>[1.02 ± 0.38]  | 0.170 ± 0.020<br>[4.32 ± 0.51] | 0.004<br>[0.10] |
| F         | 0.256<br>[6.5] | 0.220<br>[5.59] | 0.135 ± 0.015<br>[3.43 ± 0.38] | 0.070 ± 0.015<br>[1.78 ± 0.38] | 0.040 ± 0.015<br>[1.02 ± 0.38]  | 0.185 ± 0.020<br>[4.70 ± 0.51] | 0.004<br>[0.10] |
| G         | 0.300<br>[7.6] | 0.260<br>[6.60] | 0.100 ± 0.015<br>[2.54 ± 0.38] | 0.100 ± 0.015<br>[2.54 ± 0.38] | 0.040 ± 0.015<br>[1.02 ± 0.38]  | 0.220 ± 0.020<br>[5.59 ± 0.51] | 0.004<br>[0.10] |
| H         | 0.303<br>[7.7] | 0.265<br>[6.73] | 0.150 ± 0.015<br>[3.81 ± 0.38] | 0.110 ± 0.015<br>[2.79 ± 0.38] | 0.050 ± 0.015<br>[1.27 ± 0.38]  | 0.220 ± 0.020<br>[5.59 ± 0.51] | 0.004<br>[0.10] |

## Note

- The anode termination (D less B) will be a minimum of 0.25 mm (0.010").



| RATINGS AND CASE CODES |     |     |      |      |      |      |      |      |
|------------------------|-----|-----|------|------|------|------|------|------|
| μF                     | 4 V | 6 V | 10 V | 15 V | 20 V | 25 V | 35 V | 50 V |
| 0.10                   |     |     |      |      |      |      |      | A    |
| 0.15                   |     |     |      |      |      |      |      | A    |
| 0.22                   |     |     |      |      |      |      | A    | B    |
| 0.33                   |     |     |      |      |      |      | A    | B    |
| 0.47                   |     |     |      |      |      | A    | B    | D    |
| 0.68                   |     |     |      |      |      | A    | B    | D    |
| 1.0                    |     |     |      |      | A    | B    | D    | D    |
| 1.5                    |     |     |      | A    | B    | D    | D    | E    |
| 2.2                    |     |     |      | A    | B    | D    | E    | F    |
| 3.3                    |     |     | A    | B    | D    | D    | F    | F    |
| 4.7                    | A   | A   | B    | D    | D    | E    | F    | G    |
| 6.8                    | B   | B   | D    | D    | E    | F    | F    | H    |
| 10                     | B   | D   | D    | D    | F    | F    | G    | H    |
| 15                     | D   | D   | D    | E    | F    | G    | H    |      |
| 22                     | D   | D   | E    | F    | G    | H    |      |      |
| 33                     | E   | E   | F    | F    | G    | H    |      |      |
| 47                     | F   | F   | F    | G    | H    |      |      |      |
| 68                     | F   | F   | G    | H    |      |      |      |      |
| 100                    | F   | G   | G    | H    |      |      |      |      |
| 120                    | G   | G   | H    |      |      |      |      |      |
| 150                    | G   | H   | H    |      |      |      |      |      |
| 180                    | H   | H   |      |      |      |      |      |      |
| 220                    | H   | H   |      |      |      |      |      |      |
| 270                    | H   |     |      |      |      |      |      |      |

| 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 <sub>RMS</sub> (A) |  |
| 4 V <sub>DC</sub> AT + 85 °C; 2.7 V <sub>DC</sub> AT + 125 °C |           |                      |                          |                               |                                 |  |  |
| 4.7   | A         | 695D475(1)004A(2)(3) | 0.5                      | 6                             | 11.000                          | 0.07                                     |  |
| 6.8   | B         | 695D685(1)004B(2)(3) | 0.5                      | 6                             | 9.000                           | 0.09                                     |  |
| 10  | B         | 695D106(1)004B(2)(3) | 0.5                      | 6                             | 8.500                           | 0.09                                     |  |
| 15  | D         | 695D156(1)004D(2)(3) | 0.6                      | 6                             | 2.200                           | 0.20                                     |  |
| 22  | D         | 695D226(1)004D(2)(3) | 0.9                      | 6                             | 2.000                           | 0.21                                     |  |
| 33  | E         | 695D336(1)004E(2)(3) | 1.3                      | 6                             | 1.500                           | 0.25                                     |  |
| 47  | F         | 695D476(1)004F(2)(3) | 1.9                      | 6                             | 1.000                           | 0.33                                     |  |
| 68  | F         | 695D686(1)004F(2)(3) | 2.7                      | 6                             | 0.900                           | 0.35                                     |  |
| 100   | F         | 695D107(1)004F(2)(3) | 4.0                      | 8                             | 0.900                           | 0.35                                     |  |
| 120   | G         | 695D127(1)004G(2)(3) | 4.8                      | 8                             | 0.700                           | 0.41                                     |  |
| 150   | G         | 695D157(1)004G(2)(3) | 6.0                      | 8                             | 0.650                           | 0.43                                     |  |
| 180   | H         | 695D187(1)004H(2)(3) | 7.2                      | 8                             | 0.400                           | 0.61                                     |  |
| 220   | H         | 695D227(1)004H(2)(3) | 8.8                      | 8                             | 0.350                           | 0.65                                     |  |
| 270   | H         | 695D277(1)004H(2)(3) | 10.8                     | 8                             | 0.350                           | 0.65                                     |  |

**Note**

- Part number definitions:
  - (1) Tolerance: For 10 % tolerance, specify "X9"; for 20 % tolerance, change to "X0"
  - (2) Termination: For 100 % tin specify "2"; for gold plated specify "4", for solder plated 60/40 specify "8"
  - (3) Packaging code: For 7" reels specify "T", for 13" reels specify "W"



| STANDARD RATINGS   |           |                      |                                      |  |   |  |
|--|-----------|----------------------|--------------------------------------|--|---|--|
| CAPACITANCE<br>( $\mu$ F)  | CASE CODE | PART NUMBER          | MAX. DCL<br>AT + 25 °C<br>( $\mu$ A) | MAX. DF<br>AT + 25 °C<br>120 Hz<br>(%) | MAX. ESR<br>AT + 25 °C<br>100 kHz<br>( $\Omega$ ) | MAX. RIPPLE<br>100 kHz<br>$I_{RMS}$<br>(A) |
| <b>6 V<sub>DC</sub> AT + 85 °C; 4 V<sub>DC</sub> AT + 125 °C</b>   |           |                      |                                      |  |   |  |
| 4.7  | A         | 695D475(1)006A(2)(3) | 0.5                                  | 6                                      | 11.000  | 0.07                                       |
| 6.8  | B         | 695D685(1)006B(2)(3) | 0.5                                  | 6                                      | 9.000   | 0.07                                       |
| 10   | D         | 695D106(1)006D(2)(3) | 0.6                                  | 6                                      | 8.500   | 0.10                                       |
| 15   | D         | 695D156(1)006D(2)(3) | 0.9                                  | 6                                      | 2.200   | 0.20                                       |
| 22   | D         | 695D226(1)006D(2)(3) | 1.3                                  | 6                                      | 2.000   | 0.32                                       |
| 33   | E         | 695D336(1)006E(2)(3) | 2.0                                  | 6                                      | 1.500   | 0.25                                       |
| 47   | F         | 695D476(1)006F(2)(3) | 2.8                                  | 6                                      | 1.000   | 0.33                                       |
| 68   | F         | 695D686(1)006F(2)(3) | 4.1                                  | 6                                      | 0.900   | 0.35                                       |
| 100  | G         | 695D107(1)006G(2)(3) | 6.0                                  | 8                                      | 0.900   | 0.37                                       |
| 120  | G         | 695D127(1)006G(2)(3) | 7.2                                  | 8                                      | 0.700   | 0.41                                       |
| 150  | H         | 695D157(1)006H(2)(3) | 9.0                                  | 8                                      | 0.650   | 0.48                                       |
| 180  | H         | 695D187(1)006H(2)(3) | 10.8                                 | 8                                      | 0.400   | 0.61                                       |
| 220  | H         | 695D227(1)006H(2)(3) | 13.2                                 | 8                                      | 0.350   | 0.65                                       |
| <b>10 V<sub>DC</sub> AT + 85 °C; 7 V<sub>DC</sub> AT + 125 °C</b>  |           |                      |                                      |  |   |  |
| 3.3  | A         | 695D335(1)010A(2)(3) | 0.5                                  | 6                                      | 11.500  | 0.07                                       |
| 4.7  | B         | 695D475(1)010B(2)(3) | 0.5                                  | 6                                      | 10.600  | 0.08                                       |
| 6.8  | D         | 695D685(1)010D(2)(3) | 0.7                                  | 6                                      | 2.600   | 0.18                                       |
| 10   | D         | 695D106(1)010D(2)(3) | 1.0                                  | 6                                      | 2.500   | 0.18                                       |
| 15   | D         | 695D156(1)010D(2)(3) | 1.5                                  | 6                                      | 2.200   | 0.2  |
| 22   | E         | 695D226(1)010E(2)(3) | 2.2                                  | 6                                      | 2.000   | 0.22                                       |
| 33   | F         | 695D336(1)010F(2)(3) | 3.3                                  | 6                                      | 1.200   | 0.3  |
| 47   | F         | 695D476(1)010F(2)(3) | 4.7                                  | 6                                      | 1.000   | 0.33                                       |
| 68   | G         | 695D686(1)010G(2)(3) | 6.8                                  | 6                                      | 0.750   | 0.4  |
| 100  | G         | 695D107(1)010G(2)(3) | 10                                   | 8                                      | 0.750   | 0.4  |
| 120  | H         | 695D127(1)010H(2)(3) | 12                                   | 8                                      | 0.450   | 0.58                                       |
| 150  | H         | 695D157(1)010H(2)(3) | 15                                   | 8                                      | 0.400   | 0.61                                       |
| <b>15 V<sub>DC</sub> AT + 85 °C; 10 V<sub>DC</sub> AT + 125 °C</b> |           |                      |                                      |  |   |  |
| 1.5  | A         | 695D155(1)015A(2)(3) | 0.5                                  | 6                                      | 14.000  | 0.07                                       |
| 2.2  | A         | 695D225(1)015A(2)(3) | 0.5                                  | 6                                      | 12.000  | 0.07                                       |
| 3.3  | B         | 695D335(1)015B(2)(3) | 0.5                                  | 6                                      | 10.800  | 0.08                                       |
| 4.7  | D         | 695D475(1)015D(2)(3) | 0.7                                  | 6                                      | 2.800   | 0.17                                       |
| 6.8  | D         | 695D685(1)015D(2)(3) | 1.0                                  | 6                                      | 2.600   | 0.18                                       |
| 10   | D         | 695D106(1)015D(2)(3) | 1.5                                  | 6                                      | 2.500   | 0.18                                       |
| 15   | E         | 695D156(1)015E(2)(3) | 2.3                                  | 6                                      | 2.300   | 0.20                                       |
| 22   | F         | 695D226(1)015F(2)(3) | 3.3                                  | 6                                      | 1.400   | 0.28                                       |
| 33   | F         | 695D336(1)015F(2)(3) | 5.0                                  | 6                                      | 1.200   | 0.30                                       |
| 47   | G         | 695D476(1)015G(2)(3) | 7.1                                  | 6                                      | 0.800   | 0.39                                       |
| 68   | H         | 695D686(1)015H(2)(3) | 10.2                                 | 6                                      | 0.500   | 0.55                                       |
| 100  | H         | 695D107(1)015H(2)(3) | 15.0                                 | 8                                      | 0.450   | 0.58                                       |

**Note**

- Part number definitions:
  - (1) Tolerance: For 10 % tolerance, specify "X9"; for 20 % tolerance, change to "X0"
  - (2) Termination: For 100 % tin specify "2"; for gold plated specify "4", for solder plated 60/40 specify "8"
  - (3) Packaging code: For 7" reels specify "T", for 13" reels specify "W"



| STANDARD RATINGS   |           |                      |                                      |  |   |  |
|--|-----------|----------------------|--------------------------------------|--|---|--|
| CAPACITANCE<br>( $\mu$ F)  | CASE CODE | PART NUMBER          | MAX. DCL<br>AT + 25 °C<br>( $\mu$ A) | MAX. DF<br>AT + 25 °C<br>120 Hz<br>(%) | MAX. ESR<br>AT + 25 °C<br>100 kHz<br>( $\Omega$ ) | MAX. RIPPLE<br>100 kHz<br>$I_{RMS}$<br>(A) |
| <b>20 V<sub>DC</sub> AT + 85 °C; 13 V<sub>DC</sub> AT + 125 °C</b> |           |                      |                                      |  |   |  |
| 1.0  | A         | 695D105(1)020A(2)(3) | 0.5                                  | 4                                      | 15.000  | 0.06                                       |
| 1.5  | B         | 695D155(1)020B(2)(3) | 0.5                                  | 6                                      | 12.000  | 0.08                                       |
| 2.2  | B         | 695D225(1)020B(2)(3) | 0.5                                  | 6                                      | 11.000  | 0.08                                       |
| 3.3  | D         | 695D335(1)020D(2)(3) | 0.7                                  | 6                                      | 3.000   | 0.17                                       |
| 4.7  | D         | 695D475(1)020D(2)(3) | 0.9                                  | 6                                      | 2.800   | 0.17                                       |
| 6.8  | E         | 695D685(1)020E(2)(3) | 1.4                                  | 6                                      | 2.550   | 0.19                                       |
| 10   | F         | 695D106(1)020F(2)(3) | 2.0                                  | 6                                      | 1.800   | 0.25                                       |
| 15   | F         | 695D156(1)020F(2)(3) | 3.0                                  | 6                                      | 1.500   | 0.27                                       |
| 22   | G         | 695D226(1)020G(2)(3) | 4.4                                  | 6                                      | 0.900   | 0.37                                       |
| 33   | G         | 695D336(1)020G(2)(3) | 6.6                                  | 6                                      | 0.800   | 0.39                                       |
| 47   | H         | 695D476(1)020H(2)(3) | 9.4                                  | 6                                      | 0.500   | 0.55                                       |
| <b>25 V<sub>DC</sub> AT + 85 °C; 17 V<sub>DC</sub> AT + 125 °C</b> |           |                      |                                      |  |   |  |
| 0.47   | A         | 695D474(1)025A(2)(3) | 0.5                                  | 4                                      | 17.000  | 0.06                                       |
| 0.68   | A         | 695D684(1)025A(2)(3) | 0.5                                  | 4                                      | 15.000  | 0.06                                       |
| 1.0  | B         | 695D105(1)025B(2)(3) | 0.5                                  | 4                                      | 13.000  | 0.08                                       |
| 1.5  | D         | 695D155(1)025D(2)(3) | 0.5                                  | 6                                      | 4.200   | 0.14                                       |
| 2.2  | D         | 695D225(1)025D(2)(3) | 0.6                                  | 6                                      | 3.500   | 0.16                                       |
| 3.3  | D         | 695D335(1)025D(2)(3) | 0.8                                  | 6                                      | 3.000   | 0.17                                       |
| 4.7  | E         | 695D475(1)025E(2)(3) | 1.2                                  | 6                                      | 2.750   | 0.19                                       |
| 6.8  | F         | 695D685(1)025F(2)(3) | 1.7                                  | 6                                      | 2.000   | 0.23                                       |
| 10   | F         | 695D106(1)025F(2)(3) | 2.5                                  | 6                                      | 1.800   | 0.25                                       |
| 15   | G         | 695D156(1)025G(2)(3) | 3.8                                  | 6                                      | 1.000   | 0.35                                       |
| 22   | H         | 695D226(1)025H(2)(3) | 5.5                                  | 6                                      | 0.700   | 0.46                                       |
| 33   | H         | 695D336(1)025H(2)(3) | 8.3                                  | 6                                      | 0.800   | 0.50                                       |
| <b>35 V<sub>DC</sub> AT + 85 °C; 23 V<sub>DC</sub> AT + 125 °C</b> |           |                      |                                      |  |   |  |
| 0.22   | A         | 695D224(1)035A(2)(3) | 0.5                                  | 4                                      | 20.000  | 0.05                                       |
| 0.33   | A         | 695D334(1)035A(2)(3) | 0.5                                  | 4                                      | 18.000  | 0.06                                       |
| 0.47   | B         | 695D474(1)035B(2)(3) | 0.5                                  | 4                                      | 15.000  | 0.07                                       |
| 0.68   | B         | 695D684(1)035B(2)(3) | 0.5                                  | 4                                      | 14.000  | 0.07                                       |
| 1.0  | D         | 695D105(1)035D(2)(3) | 0.5                                  | 4                                      | 8.000   | 0.10                                       |
| 1.5  | D         | 695D155(1)035D(2)(3) | 0.5                                  | 6                                      | 4.200   | 0.14                                       |
| 2.2  | E         | 695D225(1)035E(2)(3) | 0.8                                  | 6                                      | 4.000   | 0.15                                       |
| 3.3  | F         | 695D335(1)035F(2)(3) | 1.2                                  | 6                                      | 3.200   | 0.19                                       |
| 4.7  | F         | 695D475(1)035F(2)(3) | 1.6                                  | 6                                      | 2.700   | 0.20                                       |
| 6.8  | F         | 695D685(1)035F(2)(3) | 2.4                                  | 6                                      | 2.000   | 0.23                                       |
| 10   | G         | 695D106(1)035G(2)(3) | 3.5                                  | 6                                      | 1.300   | 0.30                                       |
| 15   | H         | 695D156(1)035H(2)(3) | 5.3                                  | 6                                      | 0.800   | 0.43                                       |

**Note**

- Part number definitions:

(1) Tolerance: For 10 % tolerance, specify "X9"; for 20 % tolerance, change to "X0"

(2) Termination: For 100 % tin specify "2"; for gold plated specify "4", for solder plated 60/40 specify "8"

(3) Packaging code: For 7" reels specify "T", for 13" reels specify "W"



| STANDARD RATINGS   |           |                      |                                      |  |   |  |
|--|-----------|----------------------|--------------------------------------|--|---|--|
| CAPACITANCE<br>( $\mu$ F)  | CASE CODE | PART NUMBER          | MAX. DCL<br>AT + 25 °C<br>( $\mu$ A) | MAX. DF<br>AT + 25 °C<br>120 Hz<br>(%) | MAX. ESR<br>AT + 25 °C<br>100 kHz<br>( $\Omega$ ) | MAX. RIPPLE<br>100 kHz<br>$I_{RMS}$<br>(A) |
| <b>50 V<sub>DC</sub> AT + 85 °C; 33 V<sub>DC</sub> AT + 125 °C</b> |           |                      |                                      |  |   |  |
| 0.10   | A         | 695D104(1)050A(2)(3) | 0.5                                  | 4                                      | 32.000  | 0.04                                       |
| 0.15   | A         | 695D154(1)050A(2)(3) | 0.5                                  | 4                                      | 30.000  | 0.04                                       |
| 0.22   | B         | 695D224(1)050B(2)(3) | 0.5                                  | 4                                      | 18.000  | 0.06                                       |
| 0.33   | B         | 695D334(1)050B(2)(3) | 0.5                                  | 4                                      | 16.000  | 0.07                                       |
| 0.47   | D         | 695D474(1)050D(2)(3) | 0.5                                  | 4                                      | 9.000   | 0.10                                       |
| 0.68   | D         | 695D684(1)050D(2)(3) | 0.5                                  | 4                                      | 8.500   | 0.10                                       |
| 1.0  | D         | 695D105(1)050D(2)(3) | 0.5                                  | 4                                      | 8.000   | 0.10                                       |
| 1.5  | E         | 695D155(1)050E(2)(3) | 0.8                                  | 6                                      | 5.500   | 0.13                                       |
| 2.2  | F         | 695D225(1)050F(2)(3) | 1.1                                  | 6                                      | 3.900   | 0.17                                       |
| 3.3  | F         | 695D335(1)050F(2)(3) | 1.7                                  | 6                                      | 3.200   | 0.19                                       |
| 4.7  | G         | 695D475(1)050G(2)(3) | 2.4                                  | 6                                      | 2.500   | 0.22                                       |
| 6.8  | H         | 695D685(1)050H(2)(3) | 3.4                                  | 6                                      | 1.200   | 0.35                                       |
| 10   | H         | 695D106(1)050H(2)(3) | 5.0                                  | 6                                      | 1.000   | 0.39                                       |

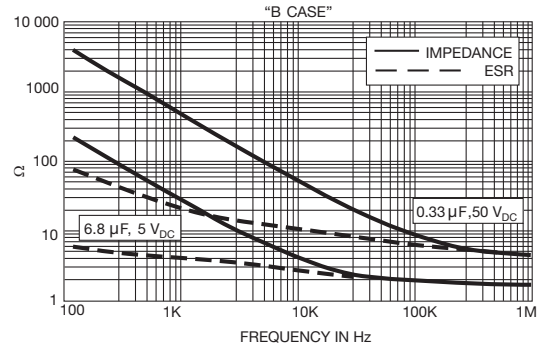
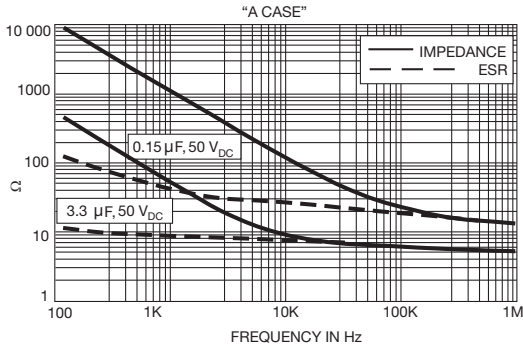
**Note**

- Part number definitions:
  - (1) Tolerance: For 10 % tolerance, specify "X9"; for 20 % tolerance, change to "X0"
  - (2) Termination: For 100 % tin specify "2"; for gold plated specify "4", for solder plated 60/40 specify "8"
  - (3) Packaging code: For 7" reels specify "T", for 13" reels specify "W"

| RECOMMENDED VOLTAGE DERATING GUIDELINES (for temperatures below + 85 °C) |                   |
|--|-------------------|
| STANDARD CONDITIONS. FOR EXAMPLE: OUTPUT FILTERS                         |                   |
| Capacitor Voltage Rating   | Operating Voltage |
| 4.0  | 2.5               |
| 6.0  | 3.6               |
| 10   | 6.0               |
| 15   | 9.0               |
| 20   | 12                |
| 25   | 15                |
| 35   | 24                |
| 50   | 28                |
| SEVERE CONDITIONS. FOR EXAMPLE: INPUT FILTERS                            |                   |
| Capacitor Voltage Rating   | Operating Voltage |
| 4.0  | 2.5               |
| 6.0  | 3.0               |
| 10   | 5.0               |
| 15   | 7.5               |
| 20   | 10                |
| 25   | 12                |
| 35   | 15                |
| 50   | 24                |



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





| POWER DISSIPATION |  |
|-------------------|--|
| CASE CODE         | MAXIMUM PERMISSIBLE POWER DISSIPATION AT + 25 °C (W) IN FREE AIR |
| A                 | 0.060  |
| B                 | 0.075  |
| D                 | 0.085  |
| E                 | 0.095  |
| F                 | 0.110  |
| G                 | 0.120  |
| H                 | 0.150  |

| STANDARD PACKAGING QUANTITY |                |          |
|-----------------------------|----------------|----------|
| CASE CODE                   | UNITS PER REEL |          |
|                             | 7" REEL        | 13" REEL |
| A                           | 2500           | 10 000   |
| B                           | 2500           | 10 000   |
| D                           | 2500           | 10 000   |
| E                           | 2500           | 10 000   |
| F                           | 1000           | 4000     |
| G                           | 1500           | 5000     |
| H                           | 600            | 2500     |

| PRODUCT INFORMATION            |  |
|--------------------------------|--|
| Conformal Coated Guide         | <a href="http://www.vishay.com/doc?40150">www.vishay.com/doc?40150</a> |
| Moisture Sensitivity           | <a href="http://www.vishay.com/doc?40135">www.vishay.com/doc?40135</a> |
| SELECTOR GUIDES                |  |
| Solid Tantalum Selector Guide  | <a href="http://www.vishay.com/doc?49053">www.vishay.com/doc?49053</a> |
| Solid Tantalum Chip Capacitors | <a href="http://www.vishay.com/doc?40091">www.vishay.com/doc?40091</a> |
| FAQ                            |  |
| Frequently Asked Questions     | <a href="http://www.vishay.com/doc?40110">www.vishay.com/doc?40110</a> |



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## Material Category Policy

**Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.**

**Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.**

**Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as Halogen-Free follow Halogen-Free requirements as per JEDEC JS709A standards. Please note that some Vishay documentation may still make reference to the IEC 61249-2-21 definition. We confirm that all the products identified as being compliant to IEC 61249-2-21 conform to JEDEC JS709A 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.);

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- 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

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