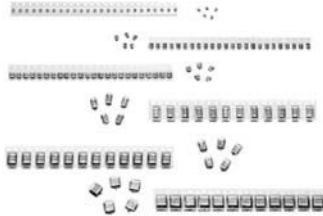


# Solid Tantalum Chip Capacitors, TANTAMOUNT<sup>®</sup>, Hi-Rel COTS, Conformal Coated


**FEATURES**

- High reliability; Weibull grading available
- Surge current testing per MIL-PRF-55365 options available
- Standard and low ESR options
- Terminations: SnPb, standard. 100 % tin available
- Mounting: Surface mount
- Material categorization: For definitions of compliance 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/ELECTRICAL 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:** 0.15 µF to 680 µF

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

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

| ORDERING INFORMATION |                                   |  |                          |   |  |  |   |                     |
|----------------------|-----------------------------------|--|--------------------------|---|--|--|---|---------------------|
| T95                  | D                                 | 107  | K                        | 010   | E  | A  | A   | S                   |
| TYPE                 | CASE CODE                         | CAPACITANCE  | CAPACITANCE TOLERANCE    | DC VOLTAGE RATING AT + 85 °C  | TERMINATION AND PACKAGING  | RELIABILITY LEVEL  | SURGE CURRENT   | ESR                 |
|                      | See Ratings and Case Codes table. | This is expressed in picofarads. The first two digits are the significant figures. The third is the number of zeros to follow. | K = ± 10 %<br>M = ± 20 % | This is expressed in volts. To complete the three-digit block, zeros precede the voltage rating. A decimal point is indicated by an "R"<br>(6R3 = 6.3 V). | E: Sn/Pb solder/<br>7" (178 mm) reels<br>L: Sn/Pb solder/<br>7" (178 mm) ½ reel<br>C: 100 % tin/<br>7" (178 mm) reels<br>H: 100 % tin/<br>7" (178 mm) ½ reel | A = 1.0 % Weibull<br>B = 0.1 % Weibull <sup>(1)</sup><br>C = 0.01 % Weibull <sup>(1)</sup><br>S = Hi-rel standard burn-in<br>Z = Non-established reliability | A = 10 cycles at + 25 °C<br>B = 10 cycles at - 55 °C/+ 85 °C<br>S = 3 cycles at + 25 °C | S = Std.<br>L = Low |

**Notes**

- (1) Weibull 0.1 % and 0.01 % may not be available on all ratings. See detailed notes in ratings table or contact marketing for availability.
- We reserve the right to supply higher voltage ratings and tighter capacitance tolerance capacitors in the same case size.
  - Low ESR solid tantalum chip capacitors allow delta ESR of 1.25 times the datasheet limits after mounting.

| DIMENSIONS in inches [millimeters] |             |   |   |                           |                            |             |              |
|------------------------------------|-------------|---|---|---------------------------|----------------------------|-------------|--------------|
|                                    |             |   |   |                           |                            |             |              |
| CASE CODE                          | L (MAX.)    | W                                       | H                                       | A                         | B                          | D (REF.)    | J (MAX.)     |
| A                                  | 0.146 [3.7] | 0.071 ± 0.012 [1.8 ± 0.3]               | 0.056 ± 0.012 [1.4 ± 0.3]               | 0.031 ± 0.012 [0.8 ± 0.3] | 0.085 ± 0.016 [2.2 ± 0.40] | 0.114 [2.9] | 0.004 [0.10] |
| B                                  | 0.157 [4.0] | 0.110 + 0.012/- 0.016 [2.8 + 0.3/- 0.4] | 0.075 + 0.012/- 0.024 [1.9 + 0.3/- 0.6] | 0.031 ± 0.012 [0.8 ± 0.3] | 0.098 ± 0.016 [2.5 ± 0.40] | 0.138 [3.5] | 0.004 [0.10] |
| C                                  | 0.280 [7.1] | 0.126 ± 0.012 [3.2 ± 0.3]               | 0.098 ± 0.012 [2.5 ± 0.3]               | 0.051 ± 0.012 [1.3 ± 0.3] | 0.181 ± 0.024 [4.6 ± 0.60] | 0.236 [6.0] | 0.004 [0.10] |
| D                                  | 0.295 [7.5] | 0.169 ± 0.012 [4.3 ± 0.3]               | 0.110 ± 0.012 [2.8 ± 0.3]               | 0.051 ± 0.012 [1.3 ± 0.3] | 0.181 ± 0.024 [4.6 ± 0.60] | 0.252 [6.0] | 0.004 [0.10] |



| DIMENSIONS in inches [millimeters] |                           |  |                                |                                |                                |                 |                 |
|------------------------------------|---------------------------|--|--------------------------------|--------------------------------|--------------------------------|-----------------|-----------------|
| CASE CODE                          | L (MAX.)                  | W  | H                              | A                              | B                              | D (REF.)        | J (MAX.)        |
| R                                  | 0.283 max.<br>[7.20 max.] | 0.236 + 0.012/- 0.024<br>[6.0 + 0.30/- 0.60] | 0.138 ± 0.012<br>[3.50 ± 0.30] | 0.051 ± 0.012<br>[1.30 ± 0.30] | 0.181 ± 0.024<br>[4.60 ± 0.60] | 0.244<br>[6.20] | 0.004<br>[0.10] |
| S                                  | 0.143 max.<br>[3.63 max.] | 0.072 ± 0.008<br>[1.83 ± 0.20]               | 0.048 ± 0.008<br>[1.22 ± 0.20] | 0.023 ± 0.010<br>[0.58 ± 0.25] | 0.085 ± 0.015<br>[2.16 ± 0.37] | 0.114<br>[2.90] | 0.004<br>[0.10] |
| V                                  | 0.143 max.<br>[3.63 max.] | 0.104 ± 0.010<br>[2.65 ± 0.25]               | 0.051 ± 0.010<br>[1.30 ± 0.25] | 0.023 ± 0.010<br>[0.58 ± 0.25] | 0.085 ± 0.015<br>[2.16 ± 0.37] | 0.114<br>[2.90] | 0.004<br>[0.10] |
| X                                  | 0.285 max.<br>[7.24 max.] | 0.104 ± 0.010<br>[2.65 ± 0.25]               | 0.051 ± 0.010<br>[1.30 ± 0.25] | 0.039 ± 0.020<br>[1.00 ± 0.50] | 0.200 ± 0.027<br>[5.08 ± 0.69] | 0.244<br>[6.20] | 0.004<br>[0.10] |
| Y                                  | 0.285 max.<br>[7.24 max.] | 0.104 ± 0.010<br>[2.65 ± 0.25]               | 0.069 ± 0.010<br>[1.75 ± 0.25] | 0.039 ± 0.020<br>[1.00 ± 0.50] | 0.200 ± 0.027<br>[5.08 ± 0.69] | 0.244<br>[6.20] | 0.004<br>[0.10] |
| Z                                  | 0.285 max.<br>[7.24 max.] | 0.104 ± 0.010<br>[2.65 ± 0.25]               | 0.104 ± 0.010<br>[2.65 ± 0.25] | 0.039 ± 0.020<br>[1.00 ± 0.50] | 0.200 ± 0.027<br>[5.08 ± 0.69] | 0.244<br>[6.20] | 0.004<br>[0.10] |

**Note**

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

| RATINGS AND CASE CODES |     |       |      |      |      |      |      |      |
|------------------------|-----|-------|------|------|------|------|------|------|
| µF                     | 4 V | 6.3 V | 10 V | 16 V | 20 V | 25 V | 35 V | 50 V |
| 0.15                   |     |       |      |      |      |      | S    |      |
| 0.22                   |     |       |      |      |      |      | S    |      |
| 0.33                   |     |       |      |      |      |      | S    |      |
| 0.47                   |     |       |      |      |      |      | S    |      |
| 0.68                   |     |       |      |      |      | S    | S    |      |
| 1.0                    |     |       |      |      |      | S    | S    |      |
| 1.5                    |     |       |      |      | S    | S    | V    |      |
| 2.2                    |     |       |      | S    | S    | V    | X    |      |
| 3.3                    |     |       | S    | S    | V    | X    |      |      |
| 4.7                    |     | S     | S    | V    | X    |      |      | C    |
| 6.8                    | S   | S     | V    | A/X  | X    | Y    | Z    | C/D  |
| 10                     | S   | V     | X    | X    | Y    | C/Y  | Z    |      |
| 15                     | V   | X     | B/X  | B/Y  | Z    | Z    | R    | R    |
| 22                     | X   | X     | Y    | B/Z  | Z    |      | R    | R    |
| 33                     | X   |       | Z    | Z    |      | D/R  | R    |      |
| 47                     | Y   | Y     | Z    |      | R    | D/R  | R    |      |
| 68                     | Y   | Z     |      | R    |      | D/R  |      |      |
| 100                    | Z   |       | R    | C/D  | R    | R    |      |      |
| 120                    |     |       | D/R  |      | R    |      |      |      |
| 150                    |     |       | D/R  | D    | R    |      |      |      |
| 180                    |     |       |      | R    | R    |      |      |      |
| 220                    |     |       | D/R  | R    |      |      |      |      |
| 270                    | D   |       |      |      |      |      |      |      |
| 330                    | R   | C     | D/R  | R    |      |      |      |      |
| 390                    |     | R     |      |      |      |      |      |      |
| 470                    |     | D     | R    |      |      |      |      |      |
| 680                    |     | R     | R    |      |      |      |      |      |



| STANDARD RATINGS   |           |                           |                                 |                               |   |  |                              |
|--|-----------|---------------------------|---------------------------------|-------------------------------|---|--|------------------------------|
| CAPACITANCE (μF)   | CASE CODE | PART NUMBER               | MAX. DC LEAKAGE AT + 25 °C (μA) | MAX. DF AT + 25 °C 120 Hz (%) | STD. (S) MAX. ESR AT + 25 °C 100 kHz <sup>(1)</sup> (Ω) | LOW (L) MAX. ESR AT + 25 °C 100 kHz <sup>(1)</sup> (Ω) | AVAILABLE RELIABILITY LEVELS |
| <b>4 V<sub>DC</sub> AT + 85 °C; 2.7 V<sub>DC</sub> AT + 125 °C</b> |           |                           |                                 |                               |   |  |                              |
| 6.8  | S         | T95S685(1)004(2)(3)(4)(5) | 0.5                             | 6                             | 4.000   | 2.000  | A, S, Z                      |
| 10   | S         | T95S106(1)004(2)(3)(4)(5) | 0.5                             | 6                             | 4.000   | 2.000  | A, S, Z                      |
| 15   | V         | T95V156(1)004(2)(3)(4)(5) | 0.6                             | 6                             | 3.000   | 1.500  | A, S, Z                      |
| 22   | X         | T95X226(1)004(2)(3)(4)(5) | 0.9                             | 6                             | 2.000   | 1.000  | A, S, Z                      |
| 33   | X         | T95X336(1)004(2)(3)(4)(5) | 1.3                             | 6                             | 2.000   | 1.000  | A, S, Z                      |
| 47   | Y         | T95Y476(1)004(2)(3)(4)(5) | 1.9                             | 6                             | 1.200   | 0.600  | A, S, Z                      |
| 68   | Y         | T95Y686(1)004(2)(3)(4)(5) | 2.7                             | 6                             | 1.200   | 0.600  | A, S, Z                      |
| 100  | Z         | T95Z107(1)004(2)(3)(4)(5) | 4.0                             | 6                             | 0.800   | 0.400  | A, S, Z                      |
| 270  | D         | T95D277(1)004(2)(3)(4)(5) | 10.8                            | 8                             | 0.130   | 0.060  | A, S, Z                      |
| 330  | R         | T95R337(1)004(2)(3)(4)(5) | 13.2                            | 8                             | 0.130   | 0.080  | A, S, Z                      |
| <b>6.3 V<sub>DC</sub> AT + 85 °C; 4 V<sub>DC</sub> AT + 125 °C</b> |           |                           |                                 |                               |   |  |                              |
| 4.7  | S         | T95S475(1)6R3(2)(3)(4)(5) | 0.5                             | 6                             | 4.000   | 2.000  | A, S, Z                      |
| 6.8  | S         | T95S685(1)6R3(2)(3)(4)(5) | 0.5                             | 6                             | 4.000   | 2.000  | A, S, Z                      |
| 10   | V         | T95V106(1)6R3(2)(3)(4)(5) | 0.6                             | 6                             | 3.000   | 1.500  | A, S, Z                      |
| 15   | X         | T95X156(1)6R3(2)(3)(4)(5) | 0.9                             | 6                             | 2.000   | 1.000  | A, S, Z                      |
| 22   | X         | T95X226(1)6R3(2)(3)(4)(5) | 1.4                             | 6                             | 2.000   | 1.000  | A, S, Z                      |
| 47   | Y         | T95Y476(1)6R3(2)(3)(4)(5) | 2.8                             | 6                             | 1.200   | 0.600  | A, S, Z                      |
| 100  | Z         | T95Z107(1)6R3(2)(3)(4)(5) | 6.0                             | 6                             | 0.800   | 0.400  | A, S, Z                      |
| 180  | R         | T95R187(1)6R3(2)(3)(4)(5) | 10.8                            | 8                             | 0.130   | 0.080  | A, S, Z                      |
| 220  | D         | T95R227(1)6R3(2)(6)(4)(5) | 22.0                            | 8                             | 0.140   | 0.065  | A, B, S, Z                   |
| 220  | R         | T95R227(1)6R3(2)(3)(4)(5) | 13.2                            | 8                             | 0.130   | 0.080  | A, S, Z                      |
| 330  | C         | T95C337(1)6R3(2)(7)(4)(5) | 20.8                            | 8                             | 0.170   | 0.080  | A, B, C, S, Z                |
| 390  | R         | T95R397(1)6R3(2)(3)(4)(5) | 23.4                            | 8                             | 0.130   | 0.045  | A, S, Z                      |
| 470  | D         | T95D477(1)6R3(2)(3)(4)(5) | 28.2                            | 10                            | 0.130   | 0.060  | A, S, Z                      |
| 680  | R         | T95R687(1)6R3(2)(3)(4)(5) | 40.8                            | 12                            | 0.090   | 0.045  | A, S, Z                      |
| <b>10 V<sub>DC</sub> AT + 85 °C; 7 V<sub>DC</sub> AT + 125 °C</b>  |           |                           |                                 |                               |   |  |                              |
| 3.3  | S         | T95S335(1)010(2)(3)(4)(5) | 0.5                             | 6                             | 5.000   | 2.500  | A, S, Z                      |
| 4.7  | S         | T95S475(1)010(2)(3)(4)(5) | 0.5                             | 6                             | 4.000   | 2.000  | A, S, Z                      |
| 6.8  | V         | T95V685(1)010(2)(3)(4)(5) | 0.7                             | 6                             | 4.000   | 2.000  | A, S, Z                      |
| 10   | X         | T95X106(1)010(2)(3)(4)(5) | 1.0                             | 6                             | 3.000   | 1.500  | A, S, Z                      |
| 15   | B         | T95B156(1)010(2)(6)(4)(5) | 1.5                             | 6                             | 0.750   | 0.550  | A, B, S, Z                   |
| 15   | X         | T95X156(1)010(2)(3)(4)(5) | 1.5                             | 6                             | 2.000   | 1.000  | A, S, Z                      |
| 22   | Y         | T95Y226(1)010(2)(6)(4)(5) | 2.2                             | 6                             | 1.200   | 0.600  | A, B, S, Z                   |
| 33   | Z         | T95Z336(1)010(2)(6)(4)(5) | 3.3                             | 6                             | 0.800   | 0.400  | A, B, S, Z                   |
| 47   | Z         | T95Z476(1)010(2)(3)(4)(5) | 4.7                             | 6                             | 0.800   | 0.400  | A, S, Z                      |
| 100  | R         | T95R107(1)010(2)(3)(4)(5) | 10.0                            | 8                             | 0.140   | 0.075  | A, S, Z                      |
| 120  | D         | T95D127(1)010(2)(7)(4)(5) | 12.0                            | 8                             | 0.140   | 0.085  | A, B, C, S, Z                |
| 120  | R         | T95R127(1)010(2)(6)(4)(5) | 12.0                            | 8                             | 0.140   | 0.070  | A, B, S, Z                   |

**Notes**

- Part number definitions:
  - (1) Capacitance tolerance: K, M
  - (2) Termination and packaging: C, E, H, L
  - (3) Reliability level: A, S, Z
  - (4) Surge current: A, B, S
  - (5) ESR: L, S
  - (6) Reliability level: A, B, S, Z
  - (7) Reliability level: A, B, C, S, Z
- (1) Empty cells: Not available



| STANDARD RATINGS   |           |                           |                                 |                               |  |   |                              |
|--|-----------|---------------------------|---------------------------------|-------------------------------|--|---|------------------------------|
| CAPACITANCE (μF)   | CASE CODE | PART NUMBER               | MAX. DC LEAKAGE AT + 25 °C (μA) | MAX. DF AT + 25 °C 120 Hz (%) | STD. (S) MAX. ESR AT + 25 °C 100 kHz (1) (Ω) | LOW (L) MAX. ESR AT + 25 °C 100 kHz (1) (Ω) | AVAILABLE RELIABILITY LEVELS |
| <b>10 V<sub>DC</sub> AT + 85 °C; 7 V<sub>DC</sub> AT + 125 °C</b>  |           |                           |                                 |                               |  |   |                              |
| 150  | D         | T95D157(1)010(2)(3)(4)(5) | 15.0                            | 8                             | 0.140  | 0.075                                       | A, S, Z                      |
| 150  | R         | T95R157(1)010(2)(3)(4)(5) | 15.0                            | 8                             | 0.130  | 0.065                                       | A, S, Z                      |
| 220  | D         | T95D227(1)010(2)(6)(4)(5) | 22.0                            | 8                             | 0.140  | 0.065                                       | A, B, S, Z                   |
| 220  | R         | T95R227(1)010(2)(3)(4)(5) | 22.0                            | 8                             | 0.130  | 0.055                                       | A, S, Z                      |
| 330  | D         | T95D337(1)010(2)(7)(4)(5) | 33.0                            | 8                             | 0.140  | 0.065                                       | A, B, C, S, Z                |
| 330  | R         | T95R337(1)010(2)(3)(4)(5) | 33.0                            | 8                             | 0.130  | 0.045                                       | A, S, Z                      |
| 470  | R         | T95R477(1)010(2)(6)(4)(5) | 47.0                            | 8                             | 0.130  | 0.045                                       | A, B, S, Z                   |
| 680  | R         | T95R687(1)010(2)(6)(4)S   | 68.0                            | 14                            | 0.090  |   | A, B, S, Z                   |
| <b>16 V<sub>DC</sub> AT + 85 °C; 10 V<sub>DC</sub> AT + 125 °C</b> |           |                           |                                 |                               |  |   |                              |
| 2.2  | S         | T95S225(1)016(2)(3)(4)(5) | 0.5                             | 6                             | 7.000  | 3.500                                       | A, S, Z                      |
| 3.3  | S         | T95S335(1)016(2)(3)(4)(5) | 0.5                             | 6                             | 5.000  | 2.500                                       | A, S, Z                      |
| 4.7  | V         | T95V475(1)016(2)(3)(4)(5) | 0.8                             | 6                             | 4.000  | 2.000                                       | A, S, Z                      |
| 6.8  | A         | T95A685(1)016(2)(3)(4)(5) | 1.1                             | 6                             | 2.800  | 0.800                                       | A, S, Z                      |
| 6.8  | X         | T95X685(1)016(2)(3)(4)(5) | 1.1                             | 6                             | 3.000  | 1.500                                       | A, S, Z                      |
| 10   | X         | T95X106(1)016(2)(3)(4)(5) | 1.6                             | 6                             | 3.000  | 1.500                                       | A, S, Z                      |
| 15   | B         | T95B156(1)016(2)(3)(4)(5) | 2.4                             | 6                             | 0.750  | 0.550                                       | A, S, Z                      |
| 15   | Y         | T95Y156(1)016(2)(6)(4)(5) | 2.4                             | 6                             | 1.200  | 0.600                                       | A, B, S, Z                   |
| 22   | B         | T95B226(1)016(2)(6)(4)(5) | 3.5                             | 6                             | 0.750  | 0.500                                       | A, B, S, Z                   |
| 22   | Z         | T95Z226(1)016(2)(3)(4)(5) | 3.5                             | 6                             | 0.800  | 0.400                                       | A, S, Z                      |
| 33   | Z         | T95Z336(1)016(2)(3)(4)(5) | 5.3                             | 6                             | 0.800  | 0.400                                       | A, S, Z                      |
| 68   | R         | T95R686(1)016(2)(3)(4)(5) | 10.9                            | 6                             | 0.600  | 0.095                                       | A, S, Z                      |
| 100  | C         | T95C107(1)016(2)(6)(4)(5) | 16.0                            | 8                             | 0.600  | 0.090                                       | A, B, S, Z                   |
| 100  | D         | T95D107(1)016(2)(6)(4)(5) | 16.0                            | 8                             | 0.140  | 0.080                                       | A, B, S, Z                   |
| 150  | D         | T95D157(1)016(2)(6)(4)(5) | 24.0                            | 8                             | 0.140  | 0.085                                       | A, B, S, Z                   |
| 180  | R         | T95R187(1)016(2)(6)(4)(5) | 28.8                            | 8                             | 0.130  | 0.055                                       | A, B, S, Z                   |
| 220  | R         | T95R227(1)016(2)(6)(4)(5) | 35.2                            | 8                             | 0.120  | 0.055                                       | A, B, S, Z                   |
| 330  | R         | T95R337(1)016(2)(6)(4)(5) | 52.8                            | 14                            | 0.110  | 0.055                                       | A, B, S, Z                   |
| <b>20 V<sub>DC</sub> AT + 85 °C; 13 V<sub>DC</sub> AT + 125 °C</b> |           |                           |                                 |                               |  |   |                              |
| 1.5  | S         | T95S155(1)020(2)(3)(4)(5) | 0.5                             | 6                             | 7.000  | 3.500                                       | A, S, Z                      |
| 2.2  | S         | T95S225(1)020(2)(3)(4)(5) | 0.5                             | 6                             | 7.000  | 3.500                                       | A, S, Z                      |
| 3.3  | V         | T95V335(1)020(2)(3)(4)(5) | 0.7                             | 6                             | 6.000  | 3.000                                       | A, S, Z                      |
| 4.7  | X         | T95X475(1)020(2)(3)(4)(5) | 0.9                             | 6                             | 3.000  | 1.500                                       | A, S, Z                      |
| 6.8  | X         | T95X685(1)020(2)(3)(4)(5) | 1.4                             | 6                             | 3.000  | 1.500                                       | A, S, Z                      |
| 10   | Y         | T95Y106(1)020(2)(3)(4)(5) | 2.0                             | 6                             | 2.000  | 1.000                                       | A, S, Z                      |
| 15   | Z         | T95Z156(1)020(2)(3)(4)(5) | 3.0                             | 6                             | 1.200  | 0.600                                       | A, S, Z                      |
| 22   | Z         | T95Z226(1)020(2)(3)(4)(5) | 4.4                             | 6                             | 0.800  | 0.400                                       | A, S, Z                      |
| 47   | R         | T95R476(1)020(2)(3)(4)(5) | 9.4                             | 6                             | 0.200  | 0.110                                       | A, S, Z                      |
| 100  | R         | T95R107(1)020(2)(6)(4)S   | 20.0                            | 8                             | 0.140  |   | A, B, S, Z                   |
| 120  | R         | T95R127(1)020(2)(6)(4)(5) | 24.0                            | 8                             | 0.140  | 0.080                                       | A, B, S, Z                   |
| 150  | R         | T95R157(1)020(2)(3)(4)(5) | 30.0                            | 8                             | 0.140  | 0.075                                       | A, S, Z                      |

Notes

- Part number definitions:
  - (1) Capacitance tolerance: K, M
  - (2) Termination and packaging: C, E, H, L
  - (3) Reliability level: A, S, Z
  - (4) Surge current: A, B, S
  - (5) ESR: L, S
  - (6) Reliability level: A, B, S, Z
  - (7) Reliability level: A, B, C, S, Z
- (1) Empty cells: Not available



| STANDARD RATINGS   |           |                           |                                 |                               |   |  |                              |
|--|-----------|---------------------------|---------------------------------|-------------------------------|---|--|------------------------------|
| CAPACITANCE (μF)   | CASE CODE | PART NUMBER               | MAX. DC LEAKAGE AT + 25 °C (μA) | MAX. DF AT + 25 °C 120 Hz (%) | STD. (S) MAX. ESR AT + 25 °C 100 kHz <sup>(1)</sup> (Ω) | LOW (L) MAX. ESR AT + 25 °C 100 kHz <sup>(1)</sup> (Ω) | AVAILABLE RELIABILITY LEVELS |
| <b>25 V<sub>DC</sub> AT + 85 °C; 17 V<sub>DC</sub> AT + 125 °C</b> |           |                           |                                 |                               |   |  |                              |
| 0.68   | S         | T95S684(1)025(2)(3)(4)(5) | 0.5                             | 4                             | 10.000  | 5.000  | A, S, Z                      |
| 1.0  | S         | T95S105(1)025(2)(3)(4)(5) | 0.5                             | 4                             | 7.000   | 3.500  | A, S, Z                      |
| 1.5  | S         | T95S155(1)025(2)(3)(4)(5) | 0.5                             | 6                             | 7.000   | 3.500  | A, S, Z                      |
| 2.2  | V         | T95V225(1)025(2)(3)(4)(5) | 0.6                             | 6                             | 4.000   | 2.000  | A, S, Z                      |
| 4.7  | X         | T95X475(1)025(2)(3)(4)(5) | 1.2                             | 6                             | 3.000   | 1.500  | A, S, Z                      |
| 6.8  | Y         | T95Y685(1)025(2)(3)(4)(5) | 1.7                             | 6                             | 2.000   | 1.000  | A, S, Z                      |
| 10   | C         | T95C106(1)025(2)(3)(4)(5) | 2.5                             | 6                             | 0.570   | 0.280  | A, S, Z                      |
| 10   | Y         | T95Y106(1)025(2)(3)(4)(5) | 2.5                             | 6                             | 2.000   | 1.000  | A, S, Z                      |
| 15   | Z         | T95Z156(1)025(2)(3)(4)(5) | 3.8                             | 6                             | 1.200   | 0.600  | A, S, Z                      |
| 33   | D         | T95D336(1)025(2)(3)(4)(5) | 8.3                             | 6                             | 0.260   | 0.130  | A, S, Z                      |
| 33   | R         | T95R336(1)025(2)(3)(4)(5) | 8.3                             | 6                             | 0.250   | 0.130  | A, S, Z                      |
| 47   | D         | T95D476(1)025(2)(6)(4)(5) | 11.8                            | 6                             | 0.260   | 0.130  | A, B, S, Z                   |
| 47   | R         | T95R476(1)025(2)(3)(4)(5) | 11.8                            | 6                             | 0.200   | 0.108  | A, S, Z                      |
| 68   | D         | T95D686(1)025(2)(6)(4)(5) | 17.0                            | 8                             | 0.260   | 0.200  | A, B, S, Z                   |
| 68   | R         | T95R686(1)025(2)(6)(4)(5) | 17.0                            | 6                             | 0.200   | 0.095  | A, B, S, Z                   |
| 100  | R         | T95R107(1)025(2)(6)(4)(5) | 25.0                            | 8                             | 0.200   | 0.090  | A, B, S, Z                   |
| <b>35 V<sub>DC</sub> AT + 85 °C; 23 V<sub>DC</sub> AT + 125 °C</b> |           |                           |                                 |                               |   |  |                              |
| 0.15   | S         | T95S154(1)035(2)(3)(4)(5) | 0.5                             | 4                             | 36.000  | 18.000   | A, S, Z                      |
| 0.22   | S         | T95S224(1)035(2)(3)(4)(5) | 0.5                             | 4                             | 30.000  | 15.000   | A, S, Z                      |
| 0.33   | S         | T95S334(1)035(2)(3)(4)(5) | 0.5                             | 4                             | 24.000  | 12.000   | A, S, Z                      |
| 0.47   | S         | T95S474(1)035(2)(3)(4)(5) | 0.5                             | 4                             | 18.000  | 9.000  | A, S, Z                      |
| 0.68   | S         | T95S684(1)035(2)(3)(4)(5) | 0.5                             | 4                             | 10.000  | 5.000  | A, S, Z                      |
| 1.0  | S         | T95S105(1)035(2)(3)(4)(5) | 0.5                             | 4                             | 7.000   | 3.500  | A, S, Z                      |
| 1.5  | V         | T95V155(1)035(2)(3)(4)(5) | 0.5                             | 6                             | 6.000   | 3.000  | A, S, Z                      |
| 2.2  | X         | T95X225(1)035(2)(3)(4)(5) | 0.8                             | 6                             | 4.000   | 2.000  | A, S, Z                      |
| 6.8  | Z         | T95Z685(1)035(2)(6)(4)(5) | 2.4                             | 6                             | 1.600   | 0.800  | A, B, S, Z                   |
| 10   | Z         | T95Z106(1)035(2)(3)(4)(5) | 3.5                             | 6                             | 1.200   | 0.600  | A, S, Z                      |
| 15   | D         | T95D156(1)035(2)(3)(4)(5) | 5.3                             | 6                             | 0.410   | 0.270  | A, S, Z                      |
| 15   | R         | T95R156(1)035(2)(3)(4)(5) | 5.3                             | 6                             | 0.380   | 0.190  | A, S, Z                      |
| 22   | R         | T95R226(1)035(2)(3)(4)(5) | 7.7                             | 6                             | 0.280   | 0.240  | A, S, Z                      |
| 33   | R         | T95R336(1)035(2)(3)(4)(5) | 11.6                            | 6                             | 0.280   | 0.200  | A, S, Z                      |
| 47   | R         | T95R476(1)035(2)(6)(4)(5) | 16.5                            | 6                             | 0.280   | 0.320  | A, B, S, Z                   |
| <b>50 V<sub>DC</sub> AT + 85 °C; 33 V<sub>DC</sub> AT + 125 °C</b> |           |                           |                                 |                               |   |  |                              |
| 4.7  | C         | T95C475(1)050(2)(6)(4)(5) | 2.4                             | 6                             | 1.400   | 0.800  | A, B, S, Z                   |
| 6.8  | C         | T95C685(1)050(2)(6)(4)(5) | 3.4                             | 6                             | 1.300   | 0.700  | A, B, S, Z                   |
| 6.8  | D         | T95D685(1)050(2)(3)(4)(5) | 3.4                             | 6                             | 0.820   | 0.450  | A, S, Z                      |
| 10   | R         | T95R106(1)050(2)(6)(4)(5) | 5.0                             | 6                             | 0.650   | 0.500  | A, B, S, Z                   |
| 15   | R         | T95R156(1)050(2)(3)(4)(5) | 7.5                             | 6                             | 0.400   | 0.350  | A, S, Z                      |
| 22   | R         | T95R226(1)050(2)(3)(4)(5) | 11.0                            | 6                             | 0.390   | 0.300  | A, S, Z                      |

Notes

- Part number definitions:
  - (1) Capacitance tolerance: K, M
  - (2) Termination and packaging: C, E, H, L
  - (3) Reliability level: A, S, Z
  - (4) Surge current: A, B, S
  - (5) ESR: L, S
  - (6) Reliability level: A, B, S, Z
  - (7) Reliability level: A, B, C, S, Z
- (1) Empty cells: Not available



| <b>RECOMMENDED VOLTAGE DERATING GUIDELINES</b> (for temperatures below + 85 °C) |                   |
|---|-------------------|
| <b>STANDARD CONDITIONS. FOR EXAMPLE: OUTPUT FILTERS</b>                         |                   |
| Capacitor Voltage Rating  | Operating Voltage |
| 4.0   | 2.5               |
| 6.3   | 3.6               |
| 10  | 6.0               |
| 16  | 10                |
| 20  | 12                |
| 25  | 15                |
| 35  | 24                |
| 50  | 28                |
| <b>SEVERE CONDITIONS. FOR EXAMPLE: INPUT FILTERS</b>                            |                   |
| Capacitor Voltage Rating  | Operating Voltage |
| 4.0   | 2.5               |
| 6.3   | 3.3               |
| 10  | 5.0               |
| 16  | 8.0               |
| 20  | 10                |
| 25  | 12                |
| 35  | 15                |
| 50  | 24                |

| <b>POWER DISSIPATION</b> |  |
|--------------------------|--|
| CASE CODE                | MAXIMUM PERMISSIBLE POWER DISSIPATION AT + 25 °C (W) IN FREE AIR |
| A                        | 0.075  |
| B                        | 0.085  |
| C                        | 0.110  |
| D                        | 0.150  |
| R                        | 0.250  |
| S                        | 0.080  |
| V                        | 0.095  |
| X                        | 0.110  |
| Y                        | 0.120  |
| Z                        | 0.135  |

| <b>STANDARD PACKAGING QUANTITY</b> |                |              |
|------------------------------------|----------------|--------------|
| CASE CODE                          | UNITS PER REEL |              |
|                                    | 7" FULL REEL   | 7" HALF REEL |
| A                                  | 2000           | 1000         |
| B                                  | 2000           | 1000         |
| C                                  | 500            | 250          |
| D                                  | 500            | 250          |
| R                                  | 600            | 300          |
| S                                  | 2500           | 1250         |
| V                                  | 2500           | 1250         |
| X                                  | 2000           | 1000         |
| Y                                  | 1500           | 750          |
| Z                                  | 1500           | 750          |

| <b>PRODUCT INFORMATION</b>     |  |
|--------------------------------|--|
| 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> |
| <b>SELECTOR GUIDES</b>         |  |
| 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> |
| <b>FAQ</b>                     |  |
| Frequently Asked Questions     | <a href="http://www.vishay.com/doc?40110">www.vishay.com/doc?40110</a> |



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**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 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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