



# TANTALUM CAPACITORS

## TL8 Series



Capacitors - Ultra Low-Profile, Solid Tantalum Chip

### MICROTAN<sup>®</sup>, Low-Profile High CV Lead-Frameless Molded Solid Tantalum Chip Capacitor



#### KEY BENEFITS

- Low-profile packages with heights of 0.8 mm, 0.9 mm, and 1.0 mm
- EIA standard footprints such as 0805, A-case and B-case
- Lead (Pb)-free L-shaped terminations for superior board mounting

#### APPLICATIONS

- Bulk capacitance/energy storage
- Filtering
- Decoupling

#### RESOURCES

- Datasheet: TL8 Series - <http://www.vishay.com/doc?40156>
- For technical questions contact [tantalum@vishay.com](mailto:tantalum@vishay.com)

One of the World's Largest Manufacturers of  
Discrete Semiconductors and Passive Components



## MICROTAN<sup>®</sup>, Low-Profile High CV Lead-Frameless Molded Solid Tantalum Chip Capacitor

| ORDERING INFORMATION |                                   |  |                            |  |                                   |
|----------------------|-----------------------------------|--|----------------------------|--|-----------------------------------|
| TL8<br>TYPE          | A0<br>CASE CODE                   | 227<br>CAPACITANCE   | M<br>CAPACITANCE TOLERANCE | 004<br>DC VOLTAGE RATING AT + 85 °C  | C<br>TERMINATION/PACKAGING        |
|                      | See Ratings and Case Codes table. | This is expressed in pF. The first two digits are the significant figures. The third is the number of zeros to follow. | M = ± 20 %<br>K = ± 10 %   | 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). | C = 100 % tin<br>7" (178 mm) reel |

**Note**

- Preferred tolerance and reel sizes are in bold.
- We reserve the right to supply higher voltage ratings and tighter capacitance tolerance capacitors in the same case size. Voltage substitutions will be marked with the higher voltage rating.

| DIMENSIONS in inches [millimeters] |             |                             |                             |                             |              |                             |
|------------------------------------|-------------|-----------------------------|-----------------------------|-----------------------------|--------------|-----------------------------|
|                                    |             |                             |                             |                             |              |                             |
| CASE CODE                          | H (MAX.)    | L                           | W                           | P1                          | P2 (REF.)    | C                           |
| W0                                 | 0.039 [1.0] | 0.079 ± 0.008 [2.00 ± 0.20] | 0.050 ± 0.008 [1.25 ± 0.20] | 0.020 ± 0.004 [0.50 ± 0.10] | 0.040 [1.00] | 0.035 ± 0.004 [0.90 ± 0.10] |
| W9                                 | 0.035 [0.9] |                             |                             |                             |              |                             |
| A0                                 | 0.039 [1.0] | 0.126 ± 0.008 [3.20 ± 0.20] | 0.063 ± 0.008 [1.60 ± 0.20] | 0.031 ± 0.004 [0.80 ± 0.10] | 0.063 [1.60] | 0.047 ± 0.004 [1.20 ± 0.10] |
| B0                                 | 0.039 [1.0] | 0.138 ± 0.008 [3.50 ± 0.20] | 0.110 ± 0.008 [2.80 ± 0.20] | 0.031 ± 0.004 [0.80 ± 0.20] | 0.078 [1.95] | 0.095 ± 0.004 [2.40 ± 0.10] |

| RATINGS AND CASE CODES |     |                   |                                      |                   |                   |                   |                   |
|------------------------|-----|-------------------|--------------------------------------|-------------------|-------------------|-------------------|-------------------|
| µF                     | 4 V | 6.3 V             | 10 V                                 | 16 V              | 20 V              | 25 V              | 35 V              |
| 1.5                    |     |                   |                                      |                   |                   |                   |                   |
| 2.2                    |     |                   |                                      |                   |                   |                   |                   |
| 3.3                    |     |                   |                                      |                   |                   |                   | A0 <sup>(1)</sup> |
| 4.7                    |     |                   |                                      |                   |                   | W0 <sup>(1)</sup> |                   |
| 6.8                    |     |                   |                                      |                   |                   |                   |                   |
| 10                     |     |                   |                                      | W0 <sup>(1)</sup> | A0 <sup>(1)</sup> |                   |                   |
| 15                     |     |                   |                                      |                   |                   |                   |                   |
| 22                     |     |                   |                                      |                   |                   |                   |                   |
| 33                     |     |                   | W0 <sup>(1)</sup>                    |                   | B0 <sup>(1)</sup> |                   |                   |
| 47                     |     | W0 <sup>(1)</sup> | W9 <sup>(1)</sup> /A0 <sup>(1)</sup> |                   |                   |                   |                   |
| 68                     |     |                   |                                      |                   |                   |                   |                   |
| 100                    |     | A0                | A0/B0 <sup>(1)</sup>                 |                   |                   |                   |                   |
| 150                    |     |                   |                                      |                   |                   |                   |                   |
| 220                    | A0  |                   |                                      |                   |                   |                   |                   |
| 330                    |     |                   |                                      |                   |                   |                   |                   |
| 470                    |     |                   |                                      |                   |                   |                   |                   |

**Note**
<sup>(1)</sup> In development.

Revision 23-May-12