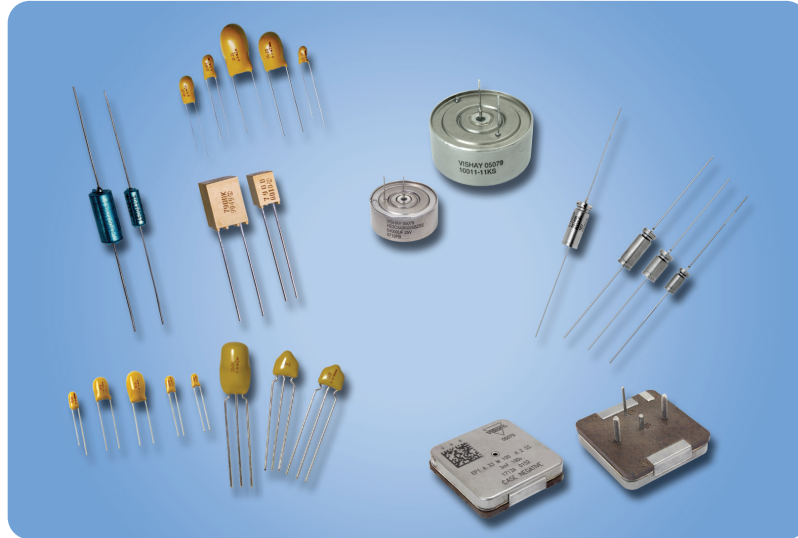




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Tantalum Solid and Wet Through-Hole Capacitors



Solid Tantalum, Through-Hole

Wet Tantalum, Through-Hole

RESOURCES












- Datasheets:
 - Wet: www.vishay.com/capacitors/tantalum/tantalum-wet/
 - Solid: www.vishay.com/capacitors/tantalum/tantalum-solid/
- Technical support: tantalum@vishay.com
- Sales contacts: www.vishay.com/doc?99914



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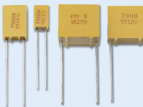




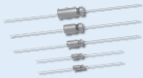
| Series | Capacitance Range | Voltage Range | Case Size | Features |
|---|------------------------------|---------------|------------------|--|
| Through-Hole Solid | | | | |
| 150D  | 0.027 μ F to 330 μ F | 6 V to 125 V | A, B, R, S | TANTALEX™, hermetically sealed, axial lead |
| 152D  | 1.2 μ F to 1000 μ F | 6 V to 60 V | A, B, R, S | TANTALEX™, hermetically sealed, axial lead, extended range |
| 550D  | 5.6 μ F to 330 μ F | 6 V to 50 V | R, S | TANTALEX™, hermetically sealed, axial lead, low ESR |
| CTS1  | 0.10 μ F to 330 μ F | 6.3 V to 63 V | A, B, C, D | TANTALEX™, hermetically sealed, axial lead, CECC 30021-002 approved |
| CTS13  | 0.10 μ F to 330 μ F | 6.3 V to 63 V | A, B, C, D | TANTALEX™, hermetically sealed, axial lead, CECC 30201-005 approved |
| 749DX  | 0.10 μ F to 330 μ F | 6.3 V to 63 V | A, B, C, D | TANTALEX™, hermetically sealed, axial lead, CECC 30201-001 and CECC 30201-029 approved |
| M39003/01  | 0.033 μ F to 330 μ F | 6 V to 100 V | A, B, C, D | TANTALEX™, hermetically sealed, axial lead, MIL-PRF-39003 qualified, CSR13 |
| M39003/03  | 1.2 μ F to 1000 μ F | 6 V to 50 V | A, B, C, D | TANTALEX™, hermetically sealed, axial lead, extended range, MIL-PRF-39003 qualified, CSR23 |
| M39003/09  | 5.6 μ F to 330 μ F | 6 V to 50 V | C, D | TANTALEX™, hermetically sealed, axial lead, low ESR, MIL-PRF-39003 qualified, CSR21 |
| 173D  | 0.10 μ F to 330 μ F | 2 V to 50 V | U, V, W, X, Y | TANTALEX™, molded case, axial lead |
| 199D  | 0.10 μ F to 680 μ F | 3 V to 50 V | A, B, C, D, E, F | TANTALEX™, resin-coated, radial lead |



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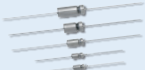

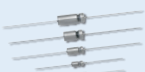






| Series | Capacitance Range | Voltage Range | Case Size | Features |
|--|-----------------------------|----------------|------------------------------|--|
| Through-Hole Solid | | | | |
| <p>299D</p>  | 0.10 μ F to 680 μ F | 3 V to 50 V | A, B, C, D, E, F | TANTALEX™, resin-coated, radial lead, triple lead |
| <p>489D, 499D</p>  | 0.10 μ F to 680 μ F | 3 V to 50 V | A, B, C, D, E, F, H, M, N, R | TANTALEX™, resin-coated, radial lead |
| <p>ETPW</p>  | 0.10 μ F to 330 μ F | 3 V to 50 V | 1A - 6R | TANTALEX™, resin-coated, radial lead |
| <p>ETQW</p>  | 0.10 μ F to 330 μ F | 3 V to 50 V | 1A - 6R | TANTALEX™, resin-coated, radial lead |
| <p>790D</p>  | 0.10 μ F to 330 μ F | 6.3 V to 50 V | A, B, C, D | TANTALEX™, molded case, radial lead |
| Through-Hole Wet | | | | |
| <p>109D</p>  | 1.7 μ F to 2200 μ F | 6 V to 150 V | C, F, K, T | TANTALEX™, silver case, elastomer seal |
| <p>138D</p>  | 1.7 μ F to 2200 μ F | 6 V to 150 V | C, F, K, T | TANTALEX™, silver case, elastomer seal |
| <p>738D</p>  | 3.3 μ F to 1200 μ F | 6.3 V to 125 V | A, B, C, D | TANTALEX™, silver case, hermetic seal |
| <p>135D</p>  | 1.7 μ F to 2200 μ F | 6 V to 125 V | C, F, K, T | TANTALEX™, tantalum case, hermetic seal, +200 °C operation |
| <p>136D</p>  | 1.7 μ F to 2200 μ F | 6 V to 125 V | C, F, K, T | TANTALEX™, tantalum case, hermetic seal, low ESR |



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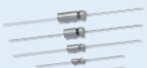








| Series | Capacitance Range | Voltage Range | Case Size | Features |
|--|-----------------------------|----------------|----------------|--|
| Through-Hole Wet | | | | |
| 134D  | 10 μ F to 1000 μ F | 50 V to 125 V | C, F, K, T | HI-TMP®, tantalum case, hermetic seal, +200 °C operation |
| T34D  | 10 μ F to 1500 μ F | 50 V to 125 V | A, B, C, D | HI-TMP®, tantalum case, hermetic seal, +200 °C operation |
| 735D  | 2.7 μ F to 2200 μ F | 6 V to 125 V | A, B, C, D | TANTALEX™, tantalum case, hermetic seal, CECC 30202-001 approved |
| 735DE  | 3.6 μ F to 2200 μ F | 6 V to 125 V | A, B, C, D | TANTALEX™, tantalum case, hermetic seal, CECC 30202-801 approved |
| CT79  | 3.9 μ F to 2200 μ F | 6.3 V to 125 V | A, B, C, D | TANTALEX™, tantalum case, hermetic seal, CECC 30202-005 approved |
| M39006/09  | 1.7 μ F to 1200 μ F | 6 V to 125 V | T1, T2, T3, T4 | TANTALEX™, silver case, hermetic seal, MIL-PRF-39006 qualified, CLR65 |
| M39006/21  | 6.8 μ F to 2200 μ F | 6 V to 125 V | T1, T2, T3, T4 | TANTALEX™, silver case, hermetic seal, extended range, MIL-PRF-39006 qualified, CLR69 |
| M39006/22  | 1.7 μ F to 1200 μ F | 6 V to 125 V | T1, T2, T3, T4 | TANTALEX™, tantalum case, hermetic seal, MIL-PRF-39006 qualified, CLR79 |
| M39006/25  | 6.8 μ F to 2200 μ F | 6 V to 125 V | T1, T2, T3, T4 | TANTALEX™, tantalum case, hermetic seal, extended range, MIL-PRF-39006 qualified, CLR81 |
| M39006/30  | 1.7 μ F to 1200 μ F | 6 V to 125 V | T1, T2, T3, T4 | TANTALEX™, tantalum case, hermetic seal, low ESR, MIL-PRF-39006 qualified, CLR90 |
| M39006/31  | 6.8 μ F to 2200 μ F | 6 V to 125 V | T1, T2, T3, T4 | TANTALEX™, tantalum case, hermetic seal, low ESR, extended range, MIL-PRF-39006 qualified, CLR91 |



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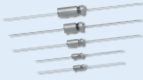

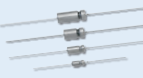

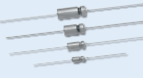
| Series | Capacitance Range | Voltage Range | Case Size | Features |
|--|------------------------------|---------------|--------------------|--|
| Through-Hole Wet | | | | |
| M39006/33  | 15 μ F to 680 μ F | 50 V to 100 V | T1, T2, T3, T4 | TANTALEX™, tantalum case, hermetic seal, extended range, MIL-PRF-39006 qualified, CLR93 |
| DLA 06013  | 1.7 μ F to 1200 μ F | 6 V to 125 V | T1, T2, T3, T4 | TANTALEX™, tantalum case, hermetic seal, space level, CLR79 ratings, DLA-approved |
| DLA 06014  | 6.8 μ F to 2200 μ F | 6 V to 125 V | T1, T2, T3, T4 | TANTALEX™, tantalum case, hermetic seal, extended range, space level, CLR81 ratings, DLA-approved |
| DLA 06015  | 1.7 μ F to 1200 μ F | 6 V to 125 V | T1, T2, T3, T4 | TANTALEX™, tantalum case, hermetic seal, low ESR, space level, CLR90 ratings, DLA-approved |
| DLA 06016  | 6.8 μ F to 2200 μ F | 6 V to 125 V | T1, T2, T3, T4 | TANTALEX™, tantalum case, hermetic seal, low ESR, extended range, space level, CLR91 ratings, DLA-approved |
| ST  | 10 μ F to 2200 μ F | 25 V to 125 V | L2, T1, T2, T3, T4 | SuperTan®, tantalum case, hermetic seal |
| DLA 93026  | 10 μ F to 2200 μ F | 25 V to 125 V | L2, T1, T2, T3, T4 | SuperTan®, tantalum case, hermetic seal, DLA-approved |
| STA  | 150 μ F to 4700 μ F | 6 V to 15 V | T1, T2, T3, T4 | SuperTan®, tantalum case, hermetic seal |
| STE  | 22 μ F to 10 000 μ F | 10 V to 125 V | T1, T2, T3, T4 | SuperTan®, tantalum case, hermetic seal, extended range |
| DLA 10004  | 22 μ F to 10 000 μ F | 10 V to 125 V | T1, T2, T3, T4 | SuperTan®, tantalum case, hermetic seal, extended range, DLA-approved |
| T11  | 47 μ F to 220 μ F | 50 V to 125 V | A, B, C, D | HI-TMP®, tantalum case, hermetic seal, +230 °C operation |



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CAPACITORS

Tantalum Solid and Wet Through-Hole

| Series | Capacitance Range | Voltage Range | Case Size | Features |
|---|-----------------------------|---------------|----------------|--|
| Through-Hole Wet | | | | |
|  <p>T16</p> | 10 μ F to 1800 μ F | 25 V to 125 V | A, B, C, D, E | Tantalum case, hermetic seal, extended range |
|  <p>DLA 13017</p> | 10 μ F to 1800 μ F | 25 V to 125 V | T1, T2, T3, T4 | Tantalum case, hermetic seal, extended range, DLA-approved |
|  <p>DLA 20001</p> | 15 μ F to 680 μ F | 50 V to 100 V | T1, T2, T3, T4 | Tantalum case, hermetic seal, space level, DLA-approved |
|  <p>T18</p> | 22 μ F to 1200 μ F | 50 V to 125 V | A, B, C, D | Tantalum case, hermetic seal, ultra high capacitance |
|  <p>DLA 15005</p> | 470 μ F to 1000 μ F | 75 V to 100 V | T1, T2, T3, T4 | Tantalum case, hermetic seal, ultra high capacitance, DLA-approved |

| Series | Capacitance Range | Voltage Range | Case Size | Features |
|---|--------------------------------|---------------|-----------|---|
| High Energy Wet | | | | |
|  <p>HE3</p> | 1100 μ F to 72 000 μ F | 25 V to 125 V | A, B, C | Tantalum case, hermetic seal, largest capacitance value available |
|  <p>HE5</p> | 1100 μ F to 72 000 μ F | 25 V to 125 V | A, B, C | Tantalum case, hermetic seal, largest capacitance value available |
|  <p>DLA 10011</p> | 1100 μ F to 72 000 μ F | 25 V to 80 V | A, B, C | Tantalum case, hermetic seal, largest capacitance value available, DLA-approved |
|  <p>EP1</p> | 2000 μ F to 58 000 μ F | 25 V to 125 V | A, B, C | Tantalum case, hermetic seal, ultra high capacitance value |