

TANTALUM SOLID AND WET THROUGH-HOLE CAPACITORS

Selector Guide

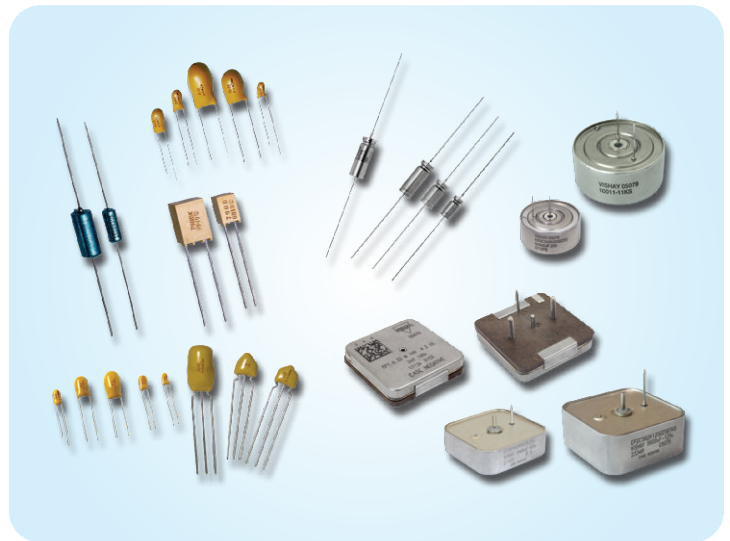
FEATURED PRODUCTS

- Solid Tantalum
- Through-Hole
- Wet Tantalum
- Through-Hole

APPLICATIONS

The Ultimate Reliability and Performance
Choice for Extreme Applications

- Aerospace
- Military
- Oil Exploration
- General High Reliability and Industrial Applications



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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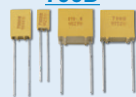
Tantalum Solid and Wet Through-Hole

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 820 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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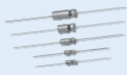
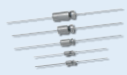
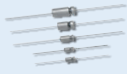
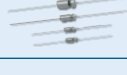
Series	Capacitance Range	Voltage Range	Case Size	Features
Through-Hole Solid				
299D 	0.10 μ F to 680 μ F	3 V to 50 V	A, B, C, D, E, F	TANTALEX™, resin-coated, radial lead, triple lead
489D, 499D 	0.10 μ F to 680 μ F	3 V to 50 V	A, B, C, D, E, F, H, M, N, R	TANTALEX™, resin-coated, radial lead
ETPW 	0.10 μ F to 330 μ F	3 V to 50 V	1A - 6R	TANTALEX™, resin-coated, radial lead
ETQW 	0.10 μ F to 330 μ F	3 V to 50 V	1A - 6R	TANTALEX™, resin-coated, radial lead
790D 	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				
109D⁽¹⁾ 	1.7 μ F to 2200 μ F	6 V to 150 V	C, F, K, T	TANTALEX™, silver case, elastomer seal
138D 	1.7 μ F to 2200 μ F	6 V to 150 V	C, F, K, T	TANTALEX™, silver case, hermetic seal
738D 	3.3 μ F to 1200 μ F	6.3 V to 125 V	A, B, C, D	TANTALEX™, silver case, hermetic seal
135D 	1.7 μ F to 2200 μ F	5 V to 150 V	C, F, K, T	TANTALEX™, tantalum case, hermetic seal, +200 °C operation, surface-mount options
136D 	1.7 μ F to 2200 μ F	6 V to 125 V	C, F, K, T	TANTALEX™, tantalum case, hermetic seal, low ESR, surface-mount options

Note: ⁽¹⁾ Not for new designs

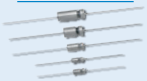


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Tantalum Solid and Wet Through-Hole

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, surface-mount options
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

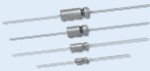
Tantalum Solid and Wet Through-Hole

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, surface-mount options
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, surface-mount options
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
STH 	47 μ F to 2800 μ F	75 V to 125 V	A, B, C, D	SuperTan®, tantalum case, hermetic seal, extended range, improved vibration capability, surface-mount options



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Through-Hole Wet				
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
T16 	10 μ F to 1800 μ F	25 V to 125 V	A, B, C, D, E	Tantalum case, hermetic seal, extended range, surface-mount options
DLA 13017 	10 μ F to 680 μ F	50 V to 125 V	T1, T2, T3, T4	Tantalum case, hermetic seal, extended range, DLA-approved
DLA 20001 	15 μ F to 680 μ F	50 V to 100 V	T1, T2, T3, T4	Tantalum case, hermetic seal, space level, DLA-approved
T18 	22 μ F to 1200 μ F	50 V to 125 V	A, B, C, D	Tantalum case, hermetic seal, ultra high capacitance, surface-mount options
DLA 15005 	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				
HE3 	1100 μ F to 72 000 μ F	25 V to 125 V	A, B, C	Tantalum case, hermetic seal, largest capacitance value available
HE5 	1100 μ F to 72 000 μ F	25 V to 125 V	A, B, C	Tantalum case, hermetic seal, largest capacitance value available
DLA 10011 	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



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Series	Capacitance Range	Voltage Range	Case Size	Features
High Energy Wet				
DLA 15010 	1500 μ F to 72 000 μ F	25 V to 125 V	A, B, C, D	Tantalum case, hermetic seal, largest capacitance value available, DLA-approved
EP2 	1500 μ F to 96 000 μ F	25 V to 125 V	A, B, C, D	Tantalum case, hermetic seal, ultra high capacitance value

Note: ⁽¹⁾ Not for new designs