

Advanced Capacitors for Demanding Applications



The Industry's Most Power-Dense Capacitor Technology

EVANSCAPS' trusted and proven hybrid technology is perfectly suited for defense & aerospace applications requiring high power in a rugged compact hi-rel hermetic package.



TDD Series



The TDD Series tantalum hybrid capacitors has the **highest power density** of any tantalum capacitor technology. Ultra-low ESR & compact construction enables very high current capability and aggressive duty cycles.

Part Number	DLA PN	Voltage (85°C)	Voltage (125°C)	Capacitance (µF)	ESR (mΩ)	Height (in)
TDD1010603	15010-01	10	6	60,000	30	0.31
TDD2010124	15010-02	10	6	120,000	20	0.45
TDD3010184	15010-03	10	6	180,000	15	0.6
TDD4010244	15010-04	10	6	240,000	12	0.75
TDD1016403	15010-05	16	9.6	40,000	30	0.31
TDD2016803	15010-06	16	9.6	80,000	20	0.45
TDD3016124	15010-07	16	9.6	120,000	15	0.6
TDD4016164	15010-08	16	9.6	160,000	12	0.75
TDD1025243	15010-09	25	15	24,000	30	0.31
TDD2025483	15010-10	25	15	48,000	20	0.45
TDD3025723	15010-11	25	15	72,000	15	0.6
TDD4025963	15010-12	25	15	96,000	12	0.75
TDD1035163	15010-13	35	21	16,000	40	0.31
TDD2035323	15010-14	35	21	32,000	20	0.45
TDD3035483	15010-15	35	21	48,000	15	0.6
TDD4035643	15010-16	35	21	64,000	12	0.75
TDD1050113	15010-17	50	30	11,000	50	0.31
TDD2050223	15010-18	50	30	22,000	25	0.45
TDD3050333	15010-19	50	30	33,000	17	0.6
TDD4050443	15010-20	50	30	44,000	15	0.75
TDD1063472	15010-21	63	38	4,700	50	0.31
TDD2063942	15010-22	63	38	9,400	25	0.45
TDD3063143	15010-23	63	38	14,000	17	0.6
TDD4063183	15010-24	63	38	18,000	15	0.75
TDD1080302	15010-25	80	48	3,000	55	0.31
TDD2080602	15010-26	80	48	6,000	27	0.45
TDD3080902	15010-27	80	48	9,000	18	0.6
TDD4080123	15010-28	80	48	12,000	15	0.75
TDD1100222	15010-29	100	60	2,200	65	0.31
TDD2100442	15010-30	100	60	4,400	30	0.45
TDD3100662	15010-31	100	60	6,600	20	0.6
TDD4100882	15010-32	100	60	8,800	15	0.75
TDD1110202		110	66	2,000	85	0.31
TDD2110402		110	66	4,000	40	0.45
TDD3110602		110	66	6,000	27	0.6
TDD4110802		110	66	8,000	20	0.75
TDD1125152	15010-33	125	75	1,500	100	0.31
TDD2125302	15010-34	125	75	3,000	50	0.45
TDD3125452	15010-35	125	75	4,500	35	0.6
TDD4125602	15010-36	125	75	6,000	25	0.75

Capacitor Bank Assemblies



COTS capacitor banks are available in 3 or 6 pack assemblies. They can be used with any THQ or TDD capacitors. They are available in capacitance ranges from 1100µF to 0.9F and voltage ranges from 10V to 300V. Custom configurations are available.

Series	Voltage Range (@85°C)	Voltage Range (@ 125°C)	Capacitance Range 120Hz (µF)	ESR Range (mΩ)
3S Series	150V-300V	90V-180V	1100-4000	100-180
3P Series	10V-100V	6V-60V	9900-450000	10-35
6P Series	10V-125V	6V-75V	20000-900000	50-60

THQ Series



The THQ Series tantalum hybrid capacitors come in a 1.4" diameter round tantalum case and provide high reliability with 15 years of proven field service.

Part Number	DLA PN	Voltage (85°C)	Voltage (125°C)	Capacitance (µF)	ESR (mΩ)	Height (in)
THQ1010503	04001-01	10	6	50,000	50	0.312
THQ2010104		10	6	100,000	37	0.46
THQ3010154	04003-01	10	6	150,000	25	0.608
THQ4010204	09022-01	10	6	200,000	25	0.725
THQ5010204	04004-01	10	6	200,000	12	0.76
THQ1016303	04001-02	16	9.6	30,000	50	0.312
THQ2016603		16	9.6	60,000	37	0.46
THQ3016903	04003-02	16	9.6	90,000	25	0.608
THQ4016124	09022-02	16	9.6	120,000	25	0.725
THQ5016124	04004-02	16	9.6	120,000	15	0.76
THQ1025183	04001-03	25	15	18,000	50	0.312
THQ2025363		25	15	36,000	50	0.46
THQ3025543	04003-03	25	15	54,000	35	0.608
THQ4025703	09022-03	25	15	70,000	25	0.725
THQ5025703	04004-03	25	15	70,000	15	0.76
THQ1035123	04001-04	35	21	12,000	50	0.312
THQ2035243		35	21	24,000	50	0.46
THQ3035363	04003-04	35	21	36,000	35	0.608
THQ4035503	09022-04	35	21	50,000	25	0.725
THQ5035503	04004-04	35	21	50,000	15	0.76
THQ1050802	04001-05	50	30	8,000	60	0.312
THQ2050163		50	30	16,000	60	0.46
THQ3050243	04003-05	50	30	24,000	35	0.608
THQ4050323	09022-05	50	30	32,000	25	0.725
THQ5050323	04004-05	50	30	32,000	15	0.76
THQ1063402	04001-06	63	38	4,000	100	0.312
THQ2063802		63	38	8,000	70	0.46
THQ3063123	04003-06	63	38	12,000	35	0.608
THQ4063163	09022-06	63	38	16,000	35	0.725
THQ5063163	04004-06	63	38	16,000	20	0.76
THQ1080282	04001-07	80	48	2,800	100	0.312
THQ2080562		80	48	5,600	70	0.46
THQ3080822	04003-07	80	48	8,200	40	0.608
THQ4080113	09022-07	80	48	11,000	35	0.725
THQ5080113	04004-07	80	48	11,000	25	0.76
THQ1100192	04001-08	100	60	1,900	125	0.312
THQ2100382		100	60	3,800	70	0.46
THQ3100572	04003-08	100	60	5,700	50	0.608
THQ4100752	09022-08	100	60	7,500	35	0.725
THQ5100752	04004-08	100	60	7,500	32	0.76
THQ1110152	04001-09	110	65	1,500	200	0.312
THQ2110302		110	65	3,000	140	0.46
THQ3110452	04003-09	110	65	4,500	75	0.608
THQ4110602		110	65	6,000	35	0.725
THQ5110602		110	65	6,000	32	0.76
THQ1125112	04003-09	125	75	1,100	200	0.312
THQ2125222		125	75	2,200	140	0.46
THQ3125332	04003-10	125	75	3,300	75	0.608
THQ4125452	09022-09	125	75	4,500	50	0.725
THQ5125452	04004-09	125	75	4,500	40	0.76

Mounting

Studs can be added to any TDD or THQ series capacitor. Studs are #2-56 VDA 752 and are available in several lengths from 0.150" – 0.400".

Visit Evanscap.com to learn more.

HyCap Series



HyCap capacitors offer the same proven Hybrid capacitor technology in the traditional tantalum wet case style. They are available in standard DSCC 93026 and DSCC 10004 ratings.

Part Number	DLA PN	Voltage (85°C)	Voltage (125°C)	Capacitance (µF)	ESR (mΩ)	Length (in)	Diameter (in)
HC8010102		10	7	1,000	800	0.641	0.281
HC8025561		25	15	560	800	0.641	0.281
HC2B025102	10004-19	25	15	1,000	800	0.641	0.281
HC8050221		50	30	220	900	0.641	0.281
HC2B050471	10004-20	50	30	470	900	0.641	0.281
HC3B050681	10004-25	50	30	680	900	0.641	0.281
HC050681	93026-40	50	30	680	700	1.062	0.375
HC2D050152	10004-08	50	30	1,500	450	1.062	0.375
HC3D050222	10004-15	50	30	2,200	600	1.062	0.375
HC4D050272		50	30	2,700	800	1.062	0.375
HC4B050821		50	30	820	800	0.641	0.281
HC8060151	93026-42	60	40	150	1100	0.641	0.281
HC2B060331	10004-21	60	40	330	900	0.641	0.281
HC3B060471	10004-26	60	40	470	1000	0.641	0.281
HC3B060561	10004-27	60	40	560	1000	0.641	0.281
HC060561	93026-44	60	40	560	800	1.062	0.375
HC2D060122	10004-16	60	40	1,200	500	1.062	0.375
HC3D060182	10004-28	60	40	1,800	500	1.062	0.375
HC4D060222		60	40	2,200	450	1.062	0.375
HC4B060681		60	40	680	900	0.641	0.281
HC2A075680		75	50	68	2800	0.453	0.188
HC8075111	93026-46	75	50	110	1300	0.641	0.281
HC075471	93026-48	75	50	470	900	1.062	0.375
HC2B075221	10004-22	75	50	220	1000	0.641	0.281
HC3B075331	10004-29	75	50	330	600	0.641	0.281
HC4B075391		75	50	390	600	0.641	0.281
HC2D075941	10004-17	75	50	940	500	1.062	0.375
HC2D075102		75	50	1,000	350	1.062	0.375
HC3D075122	10004-30	75	50	1,200	400	1.062	0.375
HC4D075152		75	50	1,500	600	1.062	0.375
HC2A100330		100	65	33	3000	0.453	0.188
HC3A100470		100	65	47	2500	0.453	0.188
HC8100680	93026-50	100	65	68	2100	0.641	0.281
HC2B100151	10004-23	100	65	150	1200	0.641	0.281
HC3B100221		100	65	220	800	0.641	0.281
HC4B100271		100	65	270	1000	0.641	0.281
HC020221	93026-52	100	65	220	1200	1.062	0.375
HC2D100471	10004-18	100	65	470	500	1.062	0.375
HC3D100681		100	65	680	600	1.062	0.375
HC4D100881		100	65	880	600	1.062	0.375
HC2A125220		125	85	22	3200	0.453	0.188
HC8125470		125	85	47	2300	0.641	0.281
HC2B125101		125	85	100	1800	0.641	0.281
HC3B125151		125	85	150	1000	0.641	0.281
HC4B125181		125	85	180	1500	0.641	0.281
HC0125151	93026-56	125	85	150	1600	1.062	0.375
HC2D125241	10004-14	125	85	240	800	1.062	0.375
HC2D125331	10004-24	125	85	330	800	1.062	0.375
HC3D125471		125	85	470	700	1.062	0.375
HC4D125561		125	85	560	700	1.062	0.375
HC2D150151		150	85	150	1800	1.062	0.375

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HyCap High Temperature "HT" Series



High Temperature HyCap Series Hybrid capacitors are designed for operation up to 200°C. HC-HT capacitors provide a full rated life of 2,000 hours at 200°C and HC2-HT capacitors are rated for 1,000 hours at 200°C.

Part Number	Voltage (175°C)	Voltage (200°C)	Capacitance (µF)	ESR (mΩ)	Length (in)	Diameter (in)
HC2A050101HT	30	25	100	2600	0.453	0.188
HC2B050471HT	30	25	470	900	0.641	0.281
HC2D050152HT	30	25	1,500	500	1.062	0.375
HC050681HT	35	30	680	700	1.062	0.375
HC2B060331HT	36	30	330	900	0.641	0.281
HC3B060561HT	36	30	560	1300	0.641	0.281
HC2D060122HT	36	30	1,200	500	1.062	0.375
HC3D060182HT	36	30	1,800	600	1.062	0.375
HC060561HT	42	36	560	800	1.062	0.375
HC2A075680HT	45	37	68	2800	0.453	0.188
HC2B075221HT	45	37	220	1000	0.641	0.281
HC2D075941HT	45	37	940	600	1.062	0.375
HC3D075122HT	45	37	1,200	800	1.062	0.375
HC3B075331HT	45	37	330	1500	0.641	0.281
HC4B075391HT	45	37	390	800	0.641	0.281
HC8075111HT	50	45	110	1300	0.641	0.281
HC075471HT	50	45	470	900	1.062	0.375
HC4D075152HT	60	50	1,500	600	1.062	0.375
HC2A100330HT	60	50	33	3000	0.453	0.188
HC2B100151HT	60	50	150	1200	0.641	0.281
HC2D100471HT	60	50	470	700	1.062	0.375
HC3D100681HT	60	50	680	500	1.062	0.375
HC4D100881HT	60	50	880	600	1.062	0.375
HC3B100221HT	60	50	220	1000	0.641	0.281
HC4B100271HT	60	50	270	1200	0.641	0.281
HC8100680HT	70	60	68	2100	0.641	0.281
HC0100221HT	70	60	220	1200	1.062	0.375
HC2A125220HT	75	62	22	3200	0.453	0.188
HC2B125101HT	75	62	100	1800	1.062	0.375
HC3B125151HT	75	62	150	1200	1.062	0.375
HC4B125181HT	75	62	180	1400	1.062	0.375
HC2D125331HT	75	62	330	800	1.062	0.375
HC3D125471HT	75	62	470	600	1.062	0.375
HC4D125561HT	75	62	560	700	1.062	0.375
HC0125151HT	85	75	150	1600	1.062	0.375

Capattery Series



Capattery super capacitors are designed for longer duration power hold up and memory backup applications. Specifications are per the DSCC 92001. Full operating temperature range of -55°C to 85°C. Unlimited cycle life and shelf life. Steady state charge life is > 25 years.

Part Number	DLA PN	Voltage (85°C)	Capacitance (µF)	ESR (mΩ)	Diameter (in)	Height (in)
RE055105	92001-02	5.5	1,000,000	700	1.28	0.675
RS055105	92001-07	5.5	1,000,000	2000	1.1	0.58
RE110474	92001-09	11	470,000	1500	1.28	1.05
RS110564	92001-14	10	560,000	4000	1.1	0.95

Capattery Shock Hardened Series

The Capattery shock hardened models are ideal for weapons systems. They can withstand shocks measured up to 100,000G and spin rates >3,000. Able to power electronics for penetrator testing. Shock hardened series not available for export.

Part Number	Voltage (85°C)	Capacitance (µF)	ESR (mΩ)	Diameter (in)	Height (in)
RSS160564	16	500,000	4000	1.1	0.95
RES160504	16	500,000	15000	1.2	1.05

THQ-A2/M2



THQA2 and THQM2 series provide high power in a compact, hermetic, tantalum package. The THQM2 series offer a 4 pin stud mount case.

Part Number	DLA PN	Voltage (85°C)	Voltage (125°C)	Capacitance (µF)	ESR (mΩ)	Diameter (in)	Height (in)
THQA2010103	04005-01	10	6	10,000	200	0.6	0.274
THQM2010103	04005-11	10	6	10,000	200	Ref Spec	0.45
THQA2016502	04005-02	16	9.5	5,000	200	0.6	0.274
THQM2016502	04005-12	16	9.5	5,000	200	Ref Spec	0.45
THQA2025382	04005-03	25	15	3,800	200	0.6	0.274
THQM2025382	04005-13	25	15	3,800	200	Ref Spec	0.45
THQA2030302	04005-04	30	18	3,000	250	0.6	0.274
THQM2030302	04005-14	30	18	3,000	250	Ref Spec	0.45
THQA2035252	04005-05	35	21	2,500	250	0.6	0.274
THQM2035252	04005-15	35	21	2,500	250	Ref Spec	0.45
THQA2050152	04005-06	50	30	1,500	250	0.6	0.274
THQM2050152	04005-16	50	30	1,500	250	Ref Spec	0.45
THQA2060871	04005-07	60	36	875	350	0.6	0.274
THQM2060871	04005-17	60	36	875	350	Ref Spec	0.45
THQA2075561	04005-08	75	45	565	500	0.6	0.274
THQM2075561	04005-18	75	45	565	500	Ref Spec	0.45
THQA2100361	04005-09	100	60	360	800	0.6	0.274
THQM2100361	04005-19	100	60	360	800	Ref Spec	0.45
THQA2125211	04005-10	125	75	215	1250	0.6	0.274
THQM2125211	04005-20	125	75	215	1250	Ref Spec	0.45

Advanced Capacitors for Demanding Applications

The EVANSCAP Advantage

- Significant savings of space, weight, and power compared to other capacitor technologies
- Qualified and in service with all tier 1 aerospace and defense contractors
- Ultra-low ESR and inductance
- Withstands high current, temperature, shock, and vibration
- Rugged hermetically sealed Hi-Rel designs

Common Applications

- Radar
- Laser
- Filtering
- Power Hold-Up/Bridge Power (MIL-STD 704/DO-160)
- Space Applications (Qualified to NASA INST-002)
- Downhole Drilling
- Electronic Warfare

THQS2 Shock Hard Series

THQS2 series "Shock Hard" hybrid capacitors are for applications with high impact shock requirements. Unlimited shelf life. Applications are limited cycle, limited time on charge such as missile fusing and short duration power hold up. Impact shock capability of 30,000g and higher. THQS2 products are not for export.

Part Number	Voltage (85°C)	Voltage (125°C)	Capacitance (µF)	ESR (mΩ)	Diameter (in)	Height (in)
THQS2008133	8	4.8	13,000	200	0.6	0.341
THQS2010103	10	6	10,000	200	0.6	0.341
THQS2016622	16	9.5	6,250	200	0.6	0.341
THQS2025442	25	15	4,400	200	0.6	0.341
THQS2035292	35	21	2,900	250	0.6	0.341
THQS2050162	50	30	1,600	250	0.6	0.341

THQA2-HT High Temperature Series

THQA2-HT Series hybrid capacitors are suitable for operation up to 200°C. THQA2-HT Hybrid Capacitors are in the same form factor as the standard THQA2, with a life of 1,000 hours at 200°C or 2,000 hours at 175°C.

Part Number	Voltage (175°C)	Voltage (200°C)	Capacitance (µF)	ESR (mΩ)	Diameter (in)	Height (in)
THQA2010103HT	5	4	10000	<300	0.6	0.274
THQA2016502HT	8	6.4	5000	<300	0.6	0.274
THQA2025382HT	12.5	10	3800	<300	0.6	0.274
THQA2030302HT	15	12	3000	<350	0.6	0.274
THQA2035252HT	17.5	14	2500	<350	0.6	0.274
THQA2050152HT	25	20	1500	<350	0.6	0.274
THQA2060871HT	30	24	870	<350	0.6	0.274
THQA2075561HT	37.5	30	565	<500	0.6	0.274
THQA2100361HT	50	40	360	<800	0.6	0.274
THQA2125211HT	62.5	50	215	<1250	0.6	0.274

HQ Series



HQ Capacitors come in a polymer case and provide high capacitance values in a lightweight package. Specifications are per the DLA 04002 spec.

Part Number	DLA PN	Voltage (70°C)	Capacitance (µF)	ESR (mΩ)	L x W (in)	Height (in)
HQ1010503	04002-01	10	50,000	50	1.63 x 1.645	0.29
HQ1016363	04002-02	16	36,000	50	1.63 x 1.645	0.29
HQ1025233	04002-03	25	23,000	50	1.63 x 1.645	0.29
HQ1035123	04002-04	35	12,000	50	1.63 x 1.645	0.29
HQ1050802	04002-05	50	8,000	60	1.63 x 1.645	0.29
HQ1063402	04002-06	63	4,000	100	1.63 x 1.645	0.29
HQ1080282	04002-07	80	2,800	100	1.63 x 1.645	0.29
HQ1100192	04002-08	100	1,900	125	1.63 x 1.645	0.29
HQ1110152	04002-09	110	1,500	200	1.63 x 1.645	0.29
HQ1125112	04002-10	125	1,100	200	1.63 x 1.645	0.29

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