Evans GROUP
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Hybrid Wet Tantalum

THQ
Series

DLA 04001, 04003, 04004, 09022



- 1.4" round base
- Heights range from 0.312″ – 0.760"
- Voltages range from 10V-125V
- Cap values range from 1,100µF – 200,000µF
- Temperature range of -55°C to 125°C
- Standard tolerance ±20% (±10% available)
- Stud mount options available

Product Overview

The THQ series capacitors utilize sintered tantalum anodes and ruthenium oxide coated cathodes operating in aqueous electrolyte with additives. The components are hermetically sealed in a welded tantalum case with a glass-to-metal anode terminal seal.

THQ series capacitors come in a 1.4” round case. They are available in 5 heights ranging from 0.312” to 0.760".

Electrical

Rated Voltage Range
10VDC to 125VDC

Capacitance Range
1,100µF to 200,000µF

Life (@ 85ºC)
>2000 hours @ Rated Voltage

Physical

Solderability
To ANSI J-STD-002

Operating Temperature Range
-55ºC to +85ºC or 125ºC with voltage derating (see page 3)

Storage Temperature Range
- 62ºC to +130ºC

Mechanical

Test	Method	Condition	Remarks
Shock	MIL-STD-202 METHOD 213	G	11 ms, 50G
Vibration	MIL-STD-202 METHOD 204	D	12 sweeps/axis, 20G peak
	MIL-STD-202 METHOD 214	II, Letter E	1.5 hours/axis, 19.64G rms
Moisture Resistance	MIL-STD-202 METHOD 106		6V bias

Thermal Dissipation

In free air, THQ SERIES exhibit a case temperature rise of approximately 20˚C per watt dissipated.

Capacitor Life

THQ series capacitors are rated for >2,000 hours at 85°C and rated voltage or 125°C at derated voltage. The effective life of a capacitor in a given application is based on the specific operating voltage and average temperature.

THQ series capacitors have an unlimited Shelf life.

RoHS

THQ series capacitors are not RoHS compliant. THQ series capacitors are REACH compliant.
- Negative terminal is 60/40 SnPb plated copper wire
- Positive Terminal is 60/40 SnPb plated Nickel Tube
- Lead free RoHS compliant options available upon request

Export Classification

THQ series capacitors are **ECCN EAR99**

Handling Guidelines

Attachment / Mounting by leads only is discouraged in applications exposed to mechanical shock or vibration. Always ensure capacitor is firmly secured to PWB, by either mounting studs, epoxy staking or both (preferred for vibration environments). In severe shock and vibration enviroments full potting is preferred.

Provide adequate care to protect the glass to metal seal (GTMS)

- Avoid forces on the positive terminal, lateral, axial or torque.
- Avoid mechanical shock to the positive terminal.
- Secure the part to PWB before soldering

Mounting with studs

- #2-56 CDA 752 studs are available as a standard option.
- Use spacers (provided) to fill the gap between PWB and leaded surface of capacitor.
- Tighten Studs to 30-40 in oz.
- Secure nuts (provided) with red Loctite. Do not use lock washers.

Potting / Epoxy Staking

- We advise epoxy staking capacitor to PWB even when using studs, for maximum vibration tolerance.
- In some applications it may be advisable to pot the cavity between the PWB and leaded surface.
- Highest shock/vibration applications may require the capacitor to be fully potted.

Soldering

- Rim of capacitor is intended to mate directly to PWB. Advise using ”no-clean” flux.
- Use through-hole soldering methods in accordance with ANSI/IPC J-STD-001.

Lead trimming

- Provide adequate care if leads must be trimmed.
- Trimming of the positive terminal is risky and highly discouraged.
- Positive lead lengths available in 1/32” increments from 0.125” when measured from the rim of the capacitor.

Part Number Description

Product Series	Voltage Rating	Cap Rating	Option: Custom Center Lead	Option: ±10% Rating	Option: Lead Free	Option: Stud Mount
THQ#	XXX	XXX	LX	K	LF	SMXX

Ratings Table

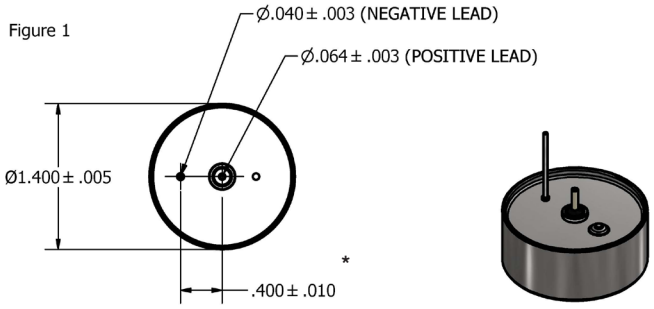
Part Number	DLA PN	Voltage_85°C	Voltage_125°C	Cap (µF)	ESR (mΩ)	Height (in)	Mass (g)
THQ1010503	04001-01	10	6	50.000	50	0.312	41
THQ2010104		10	6	100.000	37	0.46	62
THQ3010154	04003-01	10	6	150.000	25	0.608	84
THQ4010204	09022-01	10	6	200.000	25	0.725	100
THQ5010204	04004-01	10	6	200.000	15	0.760	103
THQ1016303	04001-02	16	9.5	30.000	50	0.312	41
THQ2016603		16	9.5	60.000	37	0.46	62
THQ3016903	04003-02	16	9.5	90.000	25	0.608	84
THQ4016124	09022-02	16	9.5	120.000	25	0.725	100
THQ5016124	04004-02	16	9.5	120.000	15	0.760	103
THQ1025183	04001-03	25	15	18.000	50	0.312	41
THQ2025363		25	15	36.000	50	0.46	62
THQ3025543	04003-03	25	15	54.000	35	0.608	84
THQ4025703	09022-03	25	15	70.000	25	0.725	100
THQ5025703	04004-03	25	15	70.000	20	0.760	103
THQ1035123	04001-04	35	20	12.000	50	0.312	41
THQ2035243		35	20	24.000	50	0.46	62
THQ3035363	04003-04	35	20	36.000	35	0.608	84
THQ4035503	09022-04	35	20	50.000	25	0.725	100
THQ5035503	04004-04	35	20	50.000	20	0.760	103
THQ1050802	04001-05	50	30	8.000	60	0.312	41
THQ2050163		50	30	16.000	60	0.46	62
THQ3050243	04003-05	50	30	24.000	35	0.608	84
THQ4050323	09022-05	50	30	32.000	25	0.725	100
THQ5050303	04004-05	50	30	30.000	20	0.760	103
THQ1063402	04001-06	63	37.5	4.000	100	0.312	47
THQ2063802		63	37.5	8.000	70	0.46	75
THQ3063123	04003-06	63	37.5	12.000	35	0.608	102
THQ4063163	09022-06	63	37.5	16.000	35	0.725	125
THQ5063163	04004-06	63	37.5	16.000	30	0.760	125
THQ1080282	04001-07	80	48	2.800	100	0.312	47
THQ2080562		80	48	5.600	70	0.46	75
THQ3080822	04003-07	80	48	8.200	40	0.608	102
THQ4080113	09022-07	80	48	11.000	35	0.725	125
THQ5080113	04004-07	80	48	11.000	30	0.760	125
THQ1100192	04001-08	100	60	1.900	125	0.312	47
THQ2100382		100	60	3.800	90	0.46	75
THQ3100572	04003-08	100	60	5.700	50	0.608	102
THQ4100752	09022-08	100	60	7.500	35	0.725	125
THQ5100752	04004-08	100	60	7.500	40	0.760	125
THQ1110152	04001-09	110	66	1.500	200	0.312	47
THQ2110302		110	66	3.000	140	0.46	75
THQ3110452	04003-09	110	66	4.500	75	0.608	102
THQ4110602		110	66	6.000	50	0.725	125
THQ1125112	04003-09	125	75	1.100	200	0.312	47
THQ2125222		125	75	2.200	140	0.46	75
THQ3125332	04003-10	125	75	3.300	75	0.608	102
THQ4125452	09022-09	125	75	4.500	50	0.725	125
THQ5125452	04004-09	125	75	4.500	40	0.760	125

2D Drawings

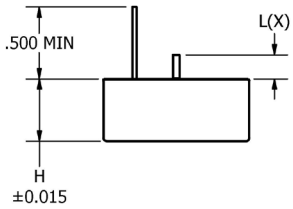
	THQ1	THQ2	THQ3	THQ4	THQ5
Case Height (H)	0.312"	0.460"	0.608"	0.725"	0.775"

* If unspecified, standard center lead length is 0.230+/-0.030"
L(x) dimensions are +/-0.010"

Figure 1



* Tolerance only valid for parts manufactured after Date Code 2610.
Older parts will have a tolerance of +/-0.015



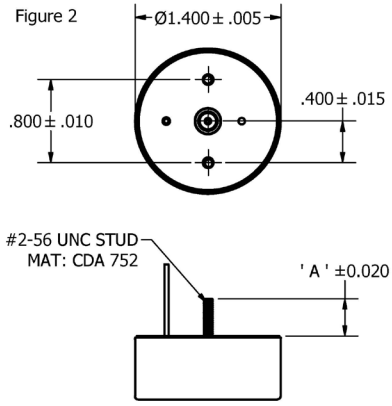
POSITIVE LEAD HEIGHTS L(X)

L0 = 0.125	±0.010
L1 = 0.156	±0.010
L2 = 0.188	±0.010
L3 = 0.219	±0.010
Blank = 0.230	±0.030
L4 = 0.250	±0.010
L5 = 0.281	±0.010
L6 = 0.313	±0.010

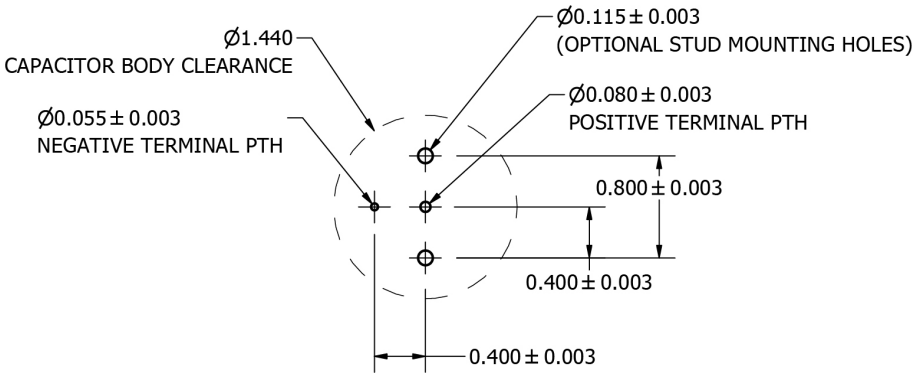
Table 3

OPTIONAL STUD MOUNT	
PART NUMBERS	STUD LENGTH ('A')
THQ#XXXXXXSM00	0.22 INCH
THQ#XXXXXXSM01	0.28 INCH
THQ#XXXXXXSM02	0.41 INCH
THQ#XXXXXXSM03	0.16 INCH
THQ#XXXXXXSM04	0.19 INCH
THQ#XXXXXXSM05	0.36 INCH

Figure 2

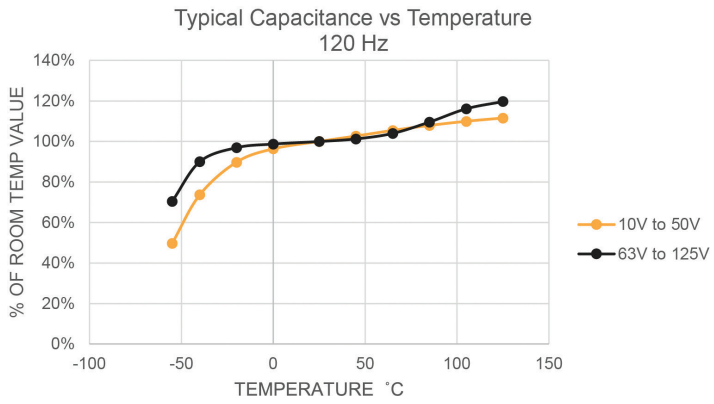


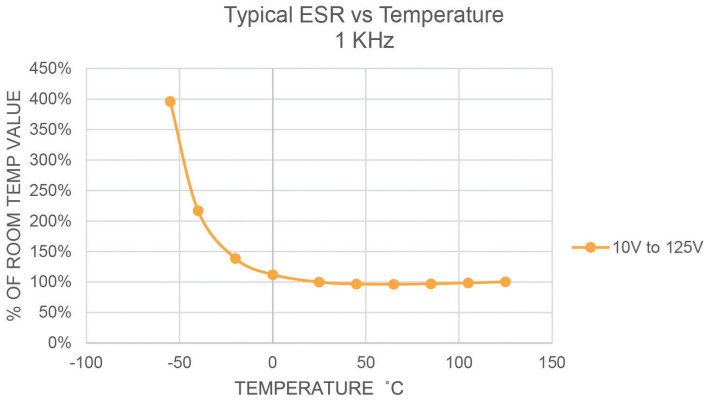
Mounting Recommendation

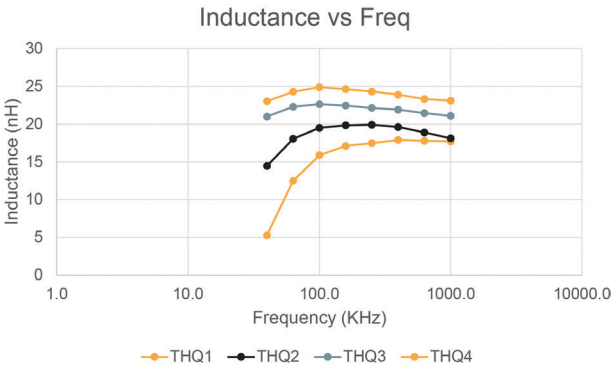


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Average Electrical Performance







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Hi-Rel Capacitors for Mission Critical Systems.

Uniting four industry leaders—Evans, Paktron, UTC, and Eulex—Evans Group delivers the industry's most specialized and comprehensive capacitor portfolio. Together, we provide power-dense, high-reliability solutions engineered for mission-critical environments across defense, aerospace, energy, and advanced RF systems.

Product specifications and technical documentation are provided for informational purposes only, are subject to change without notice, and do not create any warranty except as expressly set forth in the applicable Terms and Conditions of Sale.

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