

THQA2/M2 Series Hybrid Capacitors

Product Datasheet

08.03.2022

Product Overview

The THQA2 and THQM2 series capacitors shall utilize sintered tantalum anodes and ruthenium oxide coated cathodes operating in aqueous electrolyte with additives. The components shall be hermetically sealed in a welded tantalum case with a glass-to-metal anode terminal seal.

The THQA2 capacitor comes in a 0.6" round diameter case. The THQM2 series packages the THQA2 capacitor in a 4 pin DAP mount.

Electrical Specifications

Rated Voltage Range	10VDC to 125VDC
Capacitance Range	215uF to 10,000uF
Life (@85°C)	>2000 hours @ Rated Voltage

Mechanical Specifications

Test	Method	Condition	Remarks
Shock	MIL-STD-202 METHOD 213	G	Tested for 11ms at 50g
Vibration	MIL-STD-202 METHOD 204	D	12 sweeps/axis, 20g peak
	MIL-STD-202 METHOD 214	I, Letter D	1.5 hours/axis, 12g rms
Moisture Resistance	MIL-STD-202 METHOD 106		6V Polarity

Solderability	To ANSI J-STD-002.
Operating Temperature Range	-55°C to +85°C or 125°C with voltage derating (see page 3)
Storage Temperature Range	-62°C to +130°C

Capacitor Life

THQA2/M2 Series capacitors have an unlimited shelf life and are rated for >2,000 hours at 85°C and rated voltage or 125°C at de-rated voltage.

Environmental Compliance

THQA2/M2 Series are RoHS 5/6 compliant to EU RoHS Directive 2011/65/EU.

- The standard terminals are 60/40 SnPb plated Nickel Wire
- RoHS 6/6 compliant Lead free leads available. See part numbering nomenclature for ordering info

Export Classification

THQA2 and THQM2 series capacitors are ECCN EAR99

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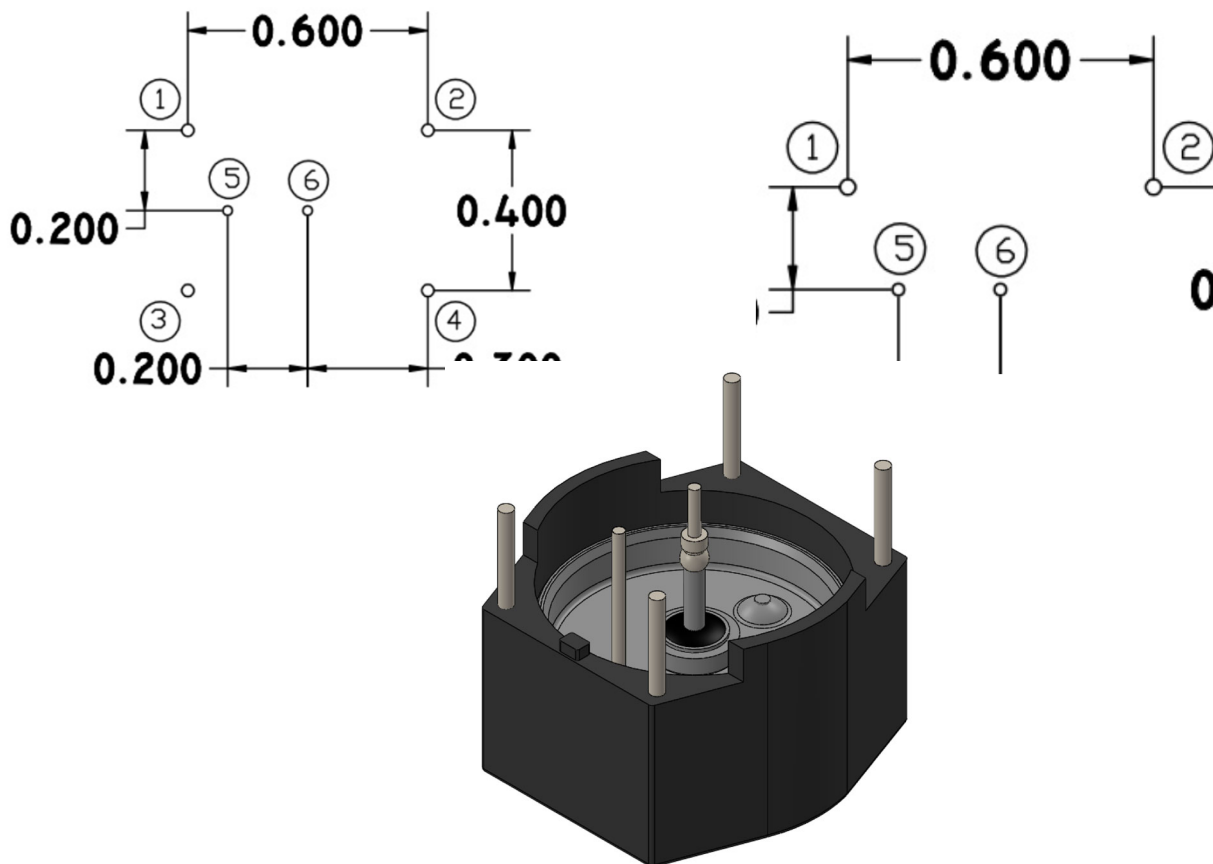
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Handling Guidelines

Attachment /Mounting by leads only is not allowed. Always ensure capacitor is firmly secured to PWB

- Provide adequate care to protect the Glass to Metal Seal (GTMS)
 - Avoid forces on the (+) pin, lateral, axial or torque.
 - Avoid Mechanical Shock of any kind to the pin.
 - Secure the part to PWB before soldering.
- Soldering
 - Rim of Capacitor is intended to mate directly to PWB. Advise using "no-clean" flux.
 - Utilize ANSI J-STD 001 Standard Through Hole Soldering methods.
- Lead trimming
 - Provide adequate care if leads must be trimmed. Positive terminal can not be trimmed below the nickel lead (0.167 from rim).

M2 Mount Pin Layout Guide



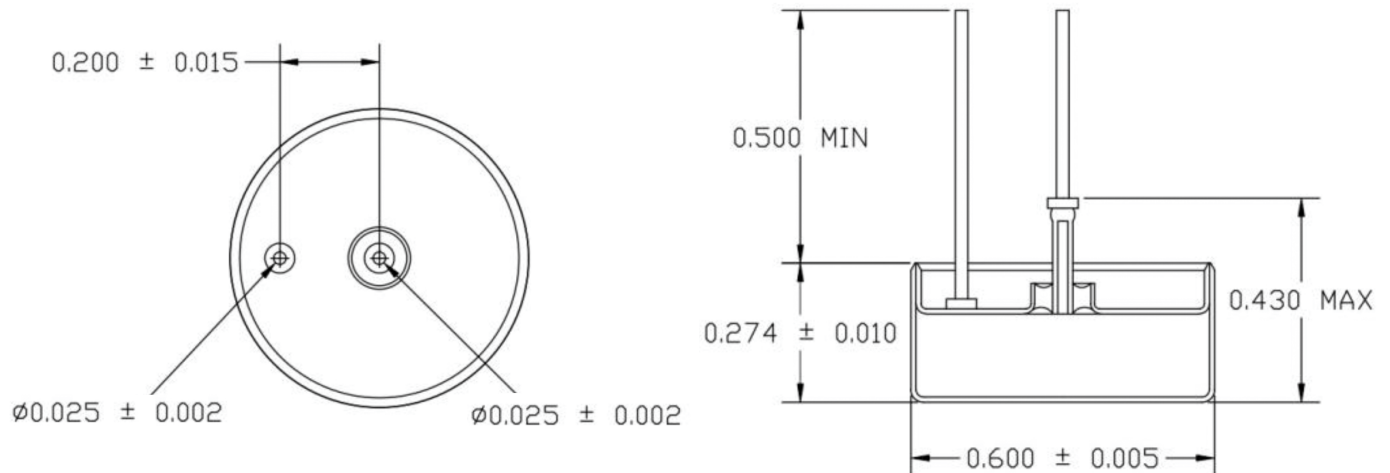
Part Number Description

<i>Product Series</i>	<i>Voltage Rating</i>	<i>Cap Rating</i>	<i>Optional: ±10% Rating</i>	<i>Optional: Lead Free</i>
THQ(X)2	XXX	XXX	K	LF

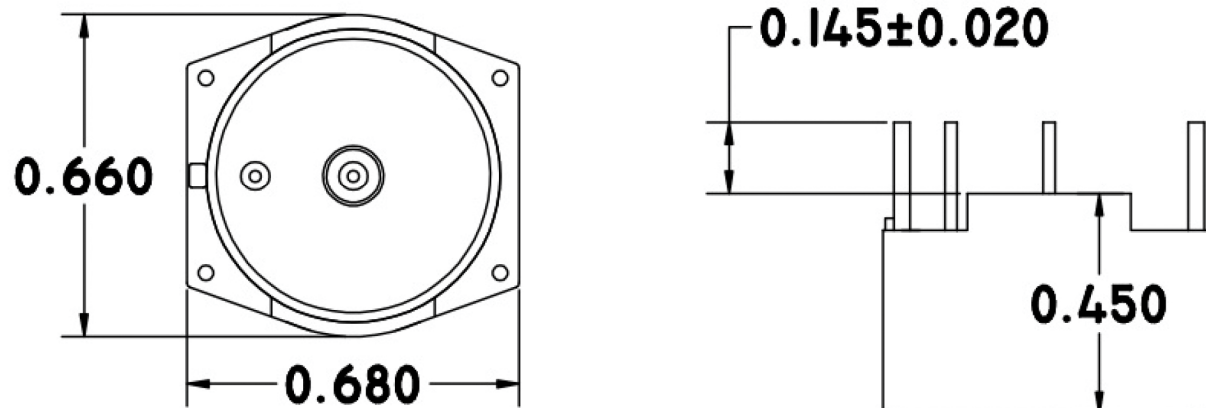
Ratings Table –THQ(X)2 Series

Part Number	DLA PN	Voltage_85°C	Voltage_125°C	Cap (µF)	ESR (mΩ)	Height (in)	Mass (g)
THQA2010103	04005-01	10	6	10,000	200	0.274	8
THQM2010103	04005-11	10	6	10,000	200	0.45	10
THQA2016502	04005-02	16	9.5	5,000	200	0.274	8
THQM2016502	04005-12	16	9.5	5,000	200	0.45	10
THQA2025382	04005-03	25	15	3,800	200	0.274	8
THQM2025382	04005-13	25	15	3,800	200	0.45	10
THQA2030302	04005-04	30	18	3,000	250	0.274	8
THQM2030302	04005-14	30	18	3,000	250	0.45	10
THQA2035252	04005-05	35	21	2,500	250	0.274	8
THQM2035252	04005-15	35	21	2,500	250	0.45	10
THQA2050152	04005-06	50	30	1,500	250	0.274	8
THQM2050152	04005-16	50	30	1,500	250	0.45	10
THQA2060871	04005-07	60	36	870	350	0.274	8
THQM2060871	04005-17	60	36	870	350	0.45	10
THQA2075561	04005-08	75	45	565	500	0.274	8
THQM2075561	04005-18	75	45	565	500	0.45	10
THQA2100361	04005-09	100	60	360	800	0.274	8
THQM2100361	04005-19	100	60	360	800	0.45	10
THQA2125211	04005-10	125	75	215	1250	0.274	8
THQM2125211	04005-20	125	75	215	1250	0.45	10

2D Drawing - THQA2



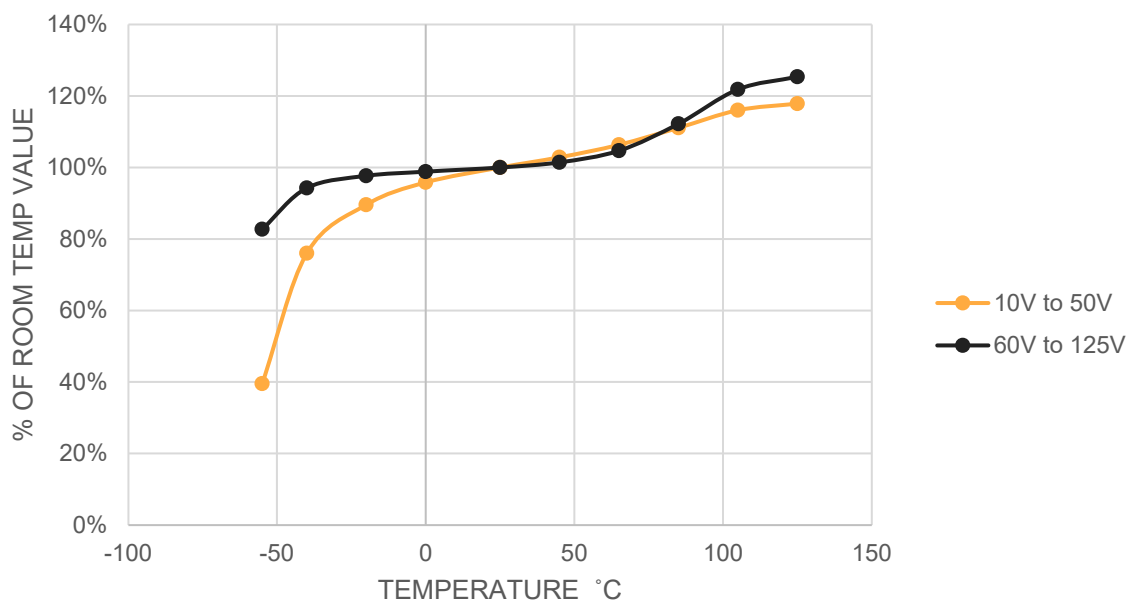
2D Drawing - THQM2



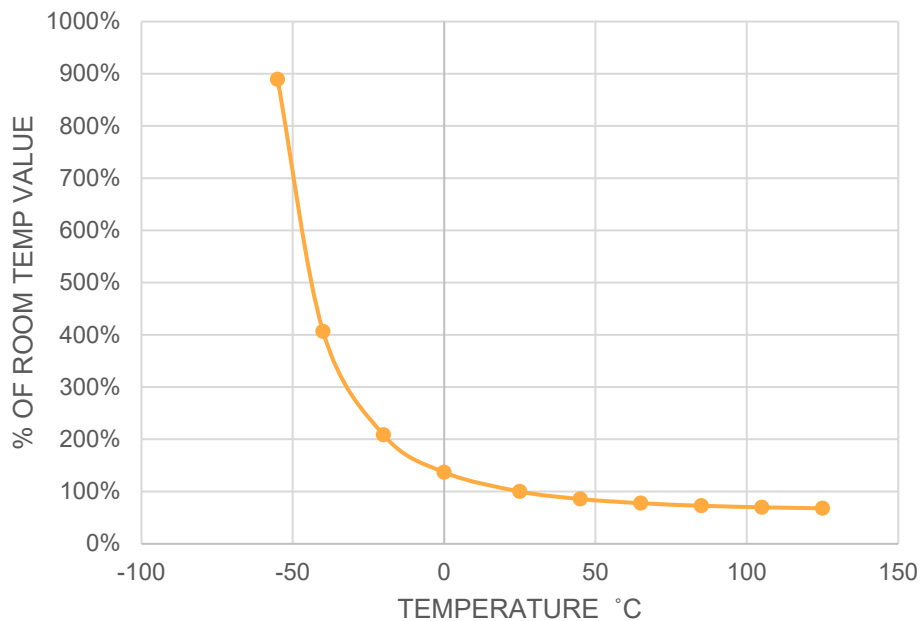
All Dimensions are in Inches

Average Electrical Performance

Typical Capacitance vs Temperature
120 Hz



Typical ESR vs Temperature
1 KHz



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