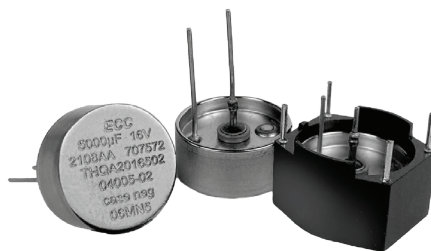


## Hybrid Wet Tantalum

## THQA2M2 Series

DLA 04005



- The THQA2 comes in a 0.6" round diameter base
- The THQM2 packages the THQA2 in a 4 pin DAP mount
- Voltages range from 10V-125V
- Cap values range from 215μF – 10,000μF
- Temperature range of -55°C to 125°C
- Standard tolerance ±20% (±10% available)

## Product Overview

The THQA2 and THQM2 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.

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

| Electrical                                                                                                                                                    | Physical                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Rated Voltage Range</b><br>10VDC to 125VDC<br><br><b>Capacitance Range</b><br>215μF to 10,000μF<br><br><b>Life (@ 85°C)</b><br>>2000 hours @ Rated Voltage | <b>Solderability</b><br>To ANSI J-STD-002<br><br><b>Operating Temperature Range</b><br>-55°C to +85°C or 125°C with voltage derating (see page 3)<br><br><b>Storage Temperature Range</b><br>- 62°C to +130°C |

| 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 | I, Letter D | 1.5 hours/axis, 12G rms  |
| Moisture Resistance | MIL-STD-202 METHOD 106 |             | 6V bias                  |

## 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 derated voltage.

## Environmental Compliance

**THQA2/M2 Series are not RoHS compliant. THQA2/M2 series are REACH compliant.**

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

## Export Classification

THQA2 and THQM2 series capacitors are **ECCN EAR99**

## 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

- Use through-hole soldering methods in accordance with ANSI/IPC J-STD-001.

### Lead trimming

- Provide adequate care if leads must be trimmed. Positive terminal can not be trimmed below the ball weld (0.167 from rim).

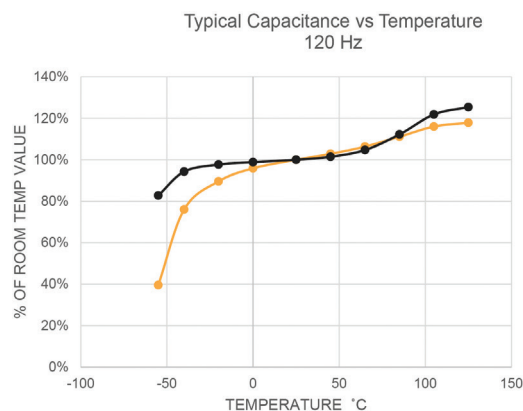
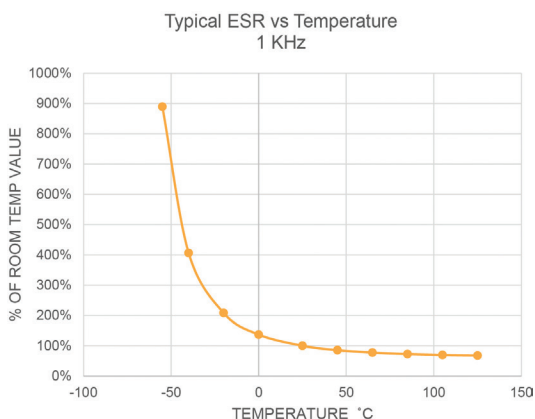
## Part Number Description

| Product Series | Voltage Rating | Cap Rating | Option:<br>±10% Rating | Optional:<br>Lead Free |
|----------------|----------------|------------|------------------------|------------------------|
| THQ(X)2        | XXX            | XXX        | K                      | LF                     |

## Ratings Table

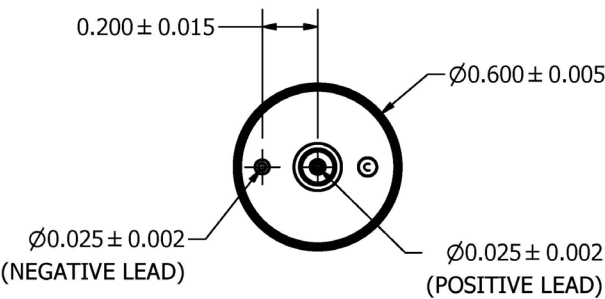
| Part Number | DLA PN   | Voltage_85°C | Voltage_125°C | Cap (μF) | ESR (mΩ) | Height (in) | Mass (g) |
|-------------|----------|--------------|---------------|----------|----------|-------------|----------|
| THQA2010103 | 04005-01 | 10           | 6             | 10.000   | 200      | 0.274       | 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       |

## Average Electrical Performance

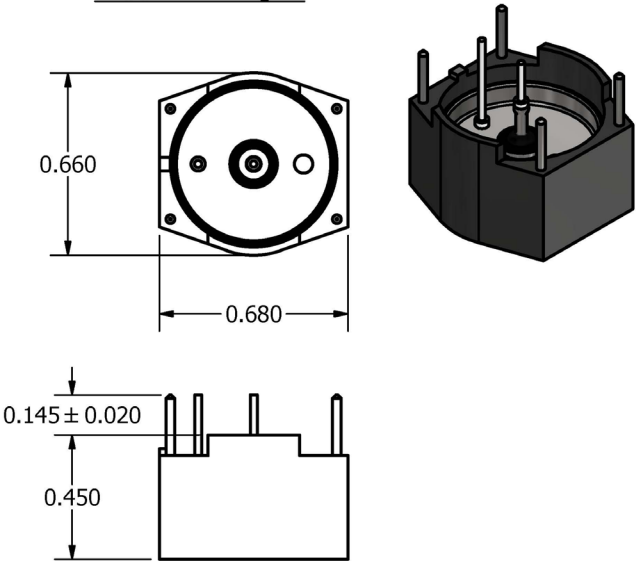


## 2D Drawing - THQA2

**FIGURE 1: THQA2**



**FIGURE 2: THQM2**



| TERMINALS: 60/40 Sn/Pb PLATED |     |                   |
|-------------------------------|-----|-------------------|
| #                             | PCB | DIA.              |
| 1                             | N/C | 0.032             |
| 2                             | N/C | 0.032             |
| 3                             | N/C | 0.032             |
| 4                             | N/C | 0.032             |
| 5                             | +   | $0.025 \pm 0.002$ |
| 6                             | -   | $0.025 \pm 0.002$ |

