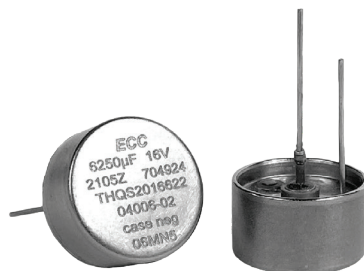


## Hybrid Wet Tantalum

# THQS2 Series



- 0.6" round diameter base
- Voltages range from 8V-50V
- Cap values range from 1,600 $\mu$ F – 13,000 $\mu$ F
- Temperature range of -55°C to 125°C
- Impact shock capability of 10,000g and higher\*
- Standard tolerance  $\pm$ 20% ( $\pm$ 10% available)

## Product Overview

The THQS2 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 THQS2 series capacitors come in a 0.6" round diameter case. These capacitors are perfectly suited for applications with high impact shock requirements. Applications are limited cycle, limited time on charge, such as missile fusing and short duration power hold up.

| Electrical                                                                                                                                                            | Physical                                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Rated Voltage Range</b><br>8VDC to 50VDC<br><br><b>Capacitance Range</b><br>1,600 $\mu$ F to 13,000 $\mu$ F<br><br><b>Life (@ 85°C)</b><br>2 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                  |
| 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

THQS2 series capacitors have an unlimited shelf life and are rated for 2 hours at 85°C and rated voltage or 125°C at derated voltage.

\*Impact shock levels verified by customer application test data.

## Environmental Compliance

THQS2 series capacitors are not RoHS compliant. THQS2 series are REACH compliant.

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

## Export Classification

THQS2 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 | Option:<br>Lead Free |
|----------------|----------------|------------|------------------------|----------------------|
| THQS2          | XXX            | XXX        | K                      | LF                   |

## Ratings Table

| Part Number | Voltage_85°C | Voltage_125°C | Cap (µF) | ESR (mΩ) | Height (in) | Mass (g) |
|-------------|--------------|---------------|----------|----------|-------------|----------|
| THQS2008133 | 8            | 4.8           | 13.000   | 200      | 0.341       | 8        |
| THQS2010103 | 10           | 6             | 10.000   | 200      | 0.341       | 8        |
| THQS2016622 | 16           | 9.5           | 6.250    | 200      | 0.341       | 8        |
| THQS2025442 | 25           | 15            | 4.400    | 200      | 0.341       | 8        |
| THQS2035292 | 35           | 21            | 2.900    | 250      | 0.341       | 8        |
| THQS2050162 | 50           | 30            | 1.600    | 250      | 0.341       | 8        |

## 2D Drawing - THQS2

