Quantic™ Evans

THQS2 Series Hybrid Capacitors

Product Datasheet

08.03.2022

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. THQS2 series capacitors have impact shock capability of 30.000g and higher.

Electrical Specifications

Rated Voltage Range	8VDC to 50VDC
Capacitance Range	1,600uF to 13,000uF
Life (@85ºC)	2 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	-55ºC to +85ºC or 125ºC with voltage derating (see page 3)
Storage Temperature Range	-62ºC to +130ºC

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 de-rated voltage.

Environmental Compliance

THQS2 series capacitors are RoHS 9/10 compliant to EU RoHS Directive 2015/863.

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

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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
  - 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).

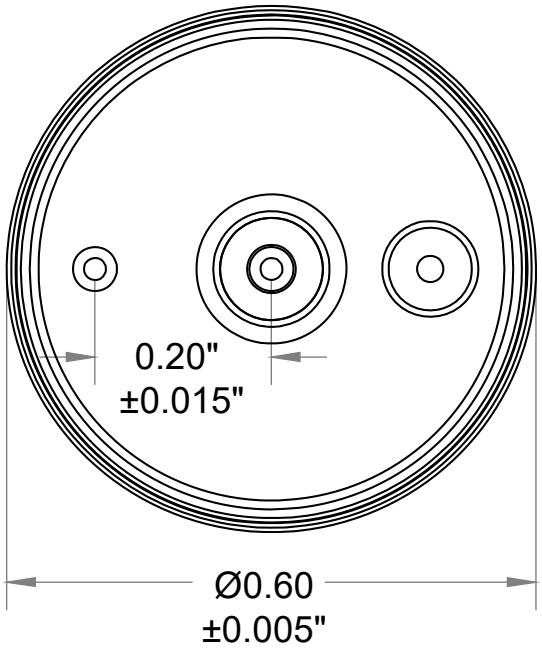
Part Number Description

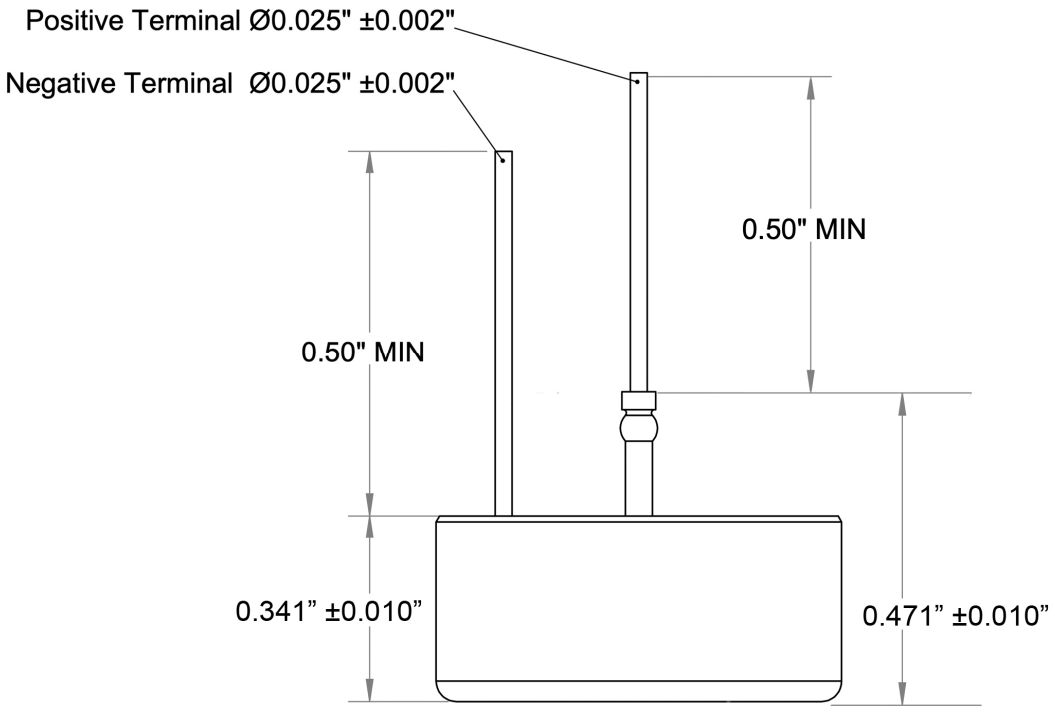
Product Series	*Voltage Rating*	*Cap Rating*	*Optional: ±10% Rating*	*Optional: Lead Free*
THQS2	XXX	XXX	K	LF

Ratings Table –THQS2 Series

Part Number	Voltage_ 70°C	Voltage_85°C	Voltage_125°C	Cap (µF)	ESR (mΩ)	Height (in)	Mass (g)
THQS2008133	8	8	4.8	13,000	200	0.341	8
THQS2010103	10	10	6	10,000	200	0.341	8
THQS2016622	16	16	9.5	6,250	200	0.341	8
THQS2025442	25	25	15	4,400	200	0.341	8
THQS2035292	35	35	21	2,900	250	0.341	8
THQS2050162	50	50	30	1,600	250	0.341	10

2D Drawing - THQS2





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