

A Quantic Company



Capattery Shock-Hardened Series Capacitors

Product Datasheet

06.21.2021



Product Overview

The Capattery is a high-reliability double layer capacitor. It stores an electrostatic charge at the interface between activated carbon and an aqueous electrolyte in the so-called electric double layer. Long life is possible because the energy storage is physical rather than chemical in nature. These features also provide stable performance during extremely high shock loading.

The shock hardened Capattery models are ideal for weapons systems. They can withstand shocks measured up to 100,000G and spin rates >3,000G. Capattery SH capacitors can power electronics for penetrator testing. SH series are not available for export.

Electrical Specifications

Rated Voltage	16VDC
Capacitance	0.5F (±20% at 25°C)
Life (@85°C)	>100,000 cycles or 25 years

Mechanical Specifications

<i>Test</i>	<i>Method</i>	<i>Condition</i>	<i>Remarks</i>
Shock	MIL-STD-202 METHOD 213	G	Up to 100,000g, Spin rate >3000
Vibration	MIL-STD-202 METHOD 204	D	12 sweeps/axis, 12g peak (High Freq.)
	MIL-STD-202 METHOD 214	I, Letter D	1.5 hours/axis, 12g rms (Random)
Moisture Resistance	MIL-STD-202 METHOD 106		6V Polarity

Solderability	To ANSI J-STD-002
Operating Temperature Range	-55°C to +85°C
Storage Temperature Range	-62°C to +95°C (can be stored up to +125°C for brief periods of time)

Capacitor Life

The Capattery Shock Hardened Series has an unlimited shelf life and limited time on charge (<24hrs). Consult Evans Capacitor Company for your application.



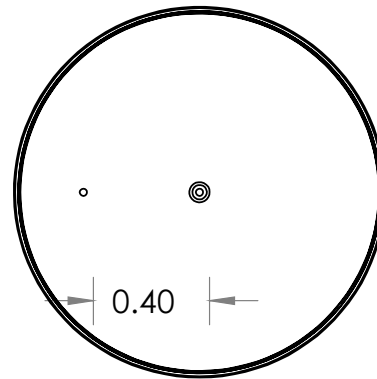
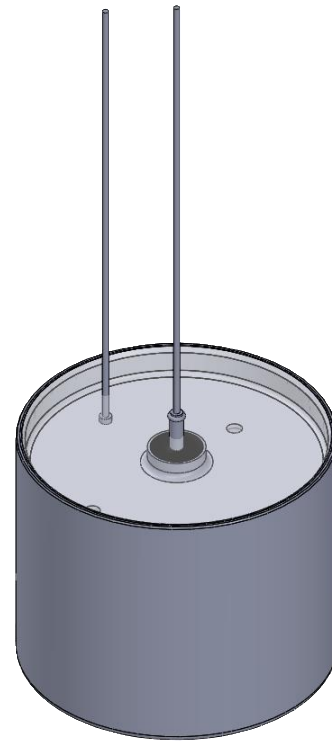
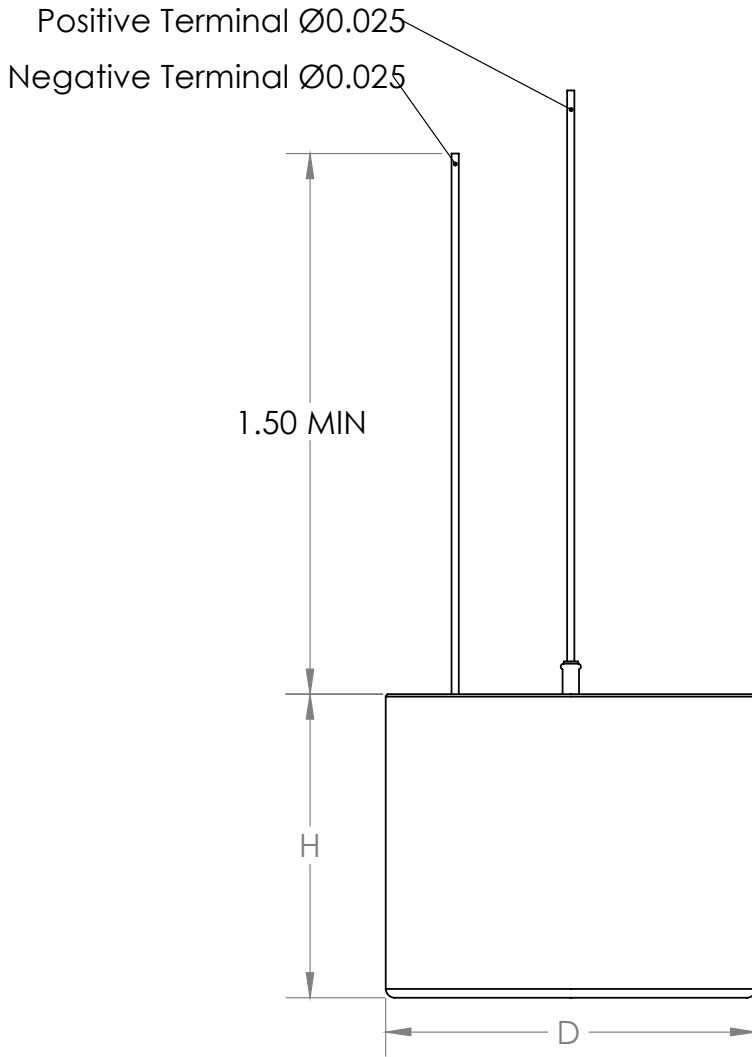
Part Number Description

<i>Product Series</i>	<i>Voltage Rating</i>	<i>Cap Rating</i>
RXX	XXX	XXX

Ratings Table

Part Number	V_{DC}	Cap (F)	ESR (Ω)	Height (in)
RSS160564	16	0.5	4	.95
RES160504	16	0.5	1.5	1.05

2D Drawing



Capacitor PN	H ± 0.060	D ± 0.020
RSS160564	.95	1.100
RES160504	1.050	1.280