

THC1 High Energy Tantalum Hybrid Capacitor

Characteristics and application

- ◆ All tantalum case, hermetic seal, Cylindrical, radial leads, Polarized
- ◆ This product is made up of tantalum capacitor and electrochemical capacitor
- ◆ Stable electric performance, high reliability, long life, large energy density per unit volume, store much energy, small size.
- ◆ Used as battery in Energy conversion circuit and power pulse circuit, Perform Energy storage, filter, power-off delay in circuit.
- ◆ Standard: QJ/PWV20102-2004

How to order: THC1-50V7000μF-M; 100pcs

Technical Performance.

Temperature range: -55°C~+125°C (>85°C use derated voltage)

Store environment temperature: -62°C~+130°C

Capacitance tolerance: M=±20%; Q=-10%~+30%

Electric performance: see table

Size and installation of the structure see picture.

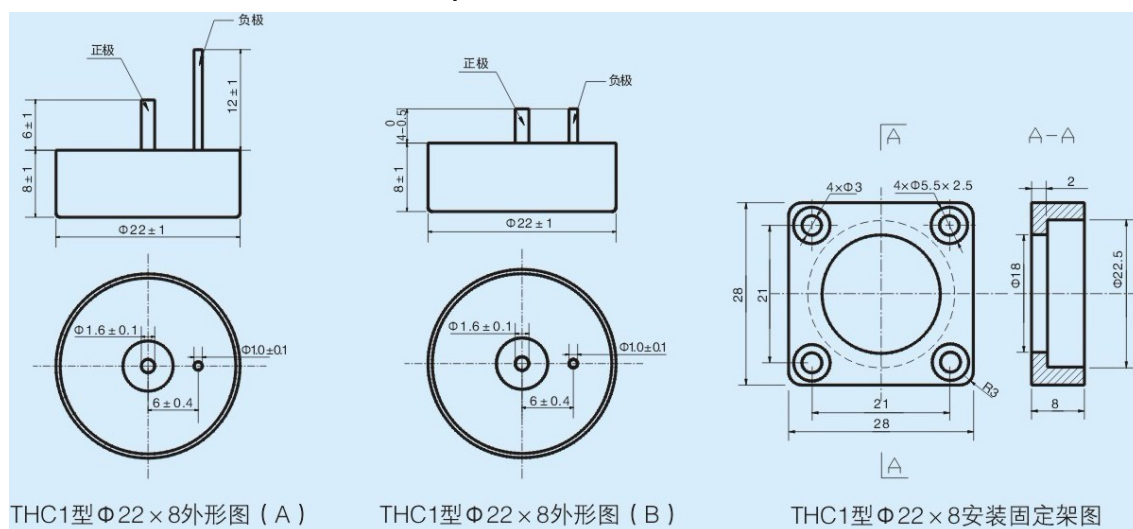


Table1 THC1 High Energy Tantalum Hybrid Capacitor data, Case size: $\phi 22 \times 8$ (mm)

Rated Voltage (V)	Derated Voltage (V)	Surge Voltage (V)	Capacitance (μF)	tgδ(%) 100HZ	ESR (Ω) 1KHZ	Leakage	resistance	capacitance	
						current (μA)	(Ω)	change (%)	
						25℃	-55℃	-55℃	+85℃
10	6	11	8000	80	0.3	100	8	-80	+160
16	9.5	17.6	7000	70	0.3	125	8	-80	+160
25	15	27.5	5000	60	0.3	150	8	-75	+150
35	20	38.5	3500	50	0.3	150	8	-70	+140
50	30	55	2500	46	0.3	155	9.6	-60	+120
63	38	70	1200	35	0.4	85	11.2	-50	+80
80	48	88	860	30	0.4	90	12.8	-40	+80
100	60	110	400	25	0.5	25	14.4	-30	+60
110	66	121	200	20	0.5	25	16	-25	+50
125	75	138	160	20	0.6	25	19.2	-20	+50



Size and installation of the structure see picture.

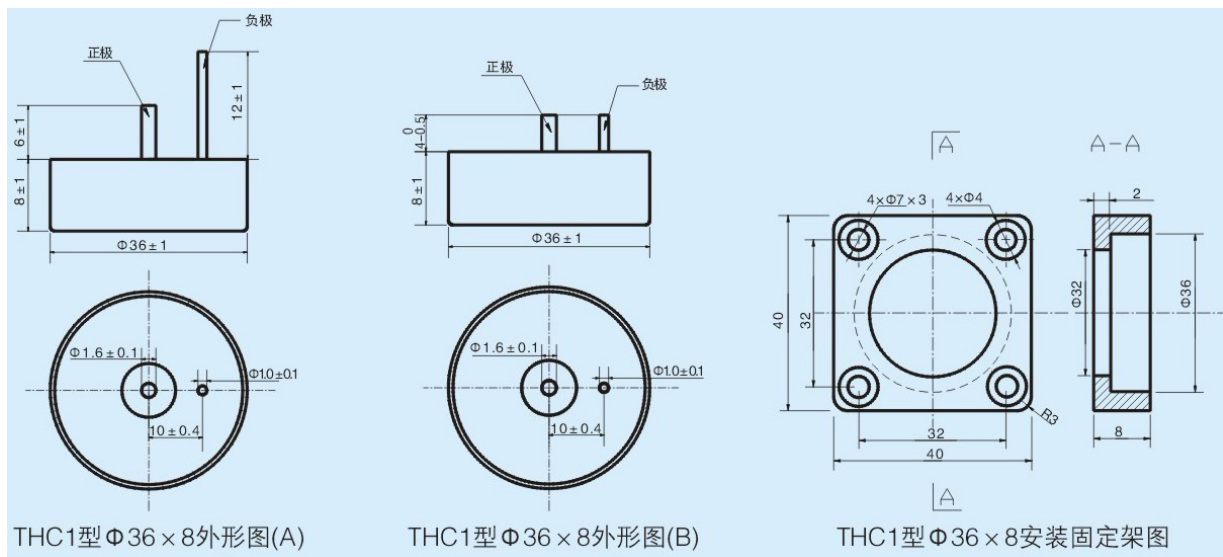


Table2 THC1 High Energy Tantalum Hybrid Capacitor data,Case size: $\phi 36 \times 8$ (mm)

Rated Voltage (V)	Derated Voltage (V)	Surge Voltage (V)	Capacitance (μF)	$\text{tg}\delta$ (%) 100HZ	ESR (Ω) 1KHZ	Leakage current (μA)		resistance (Ω) -55℃	capacitance change (%)	
						25℃	85℃/125℃		25℃	-55℃
10	6	11	50000	180	0.05	150	900	1	-75	+140
16	9.5	17.6	30000	160	0.05	150	900	1	-70	+140
25	15	27.5	18000	120	0.05	150	900	1	-65	+120
35	20	38.5	12000	90	0.05	150	900	1	-50	+120
50	30	55	8000	65	0.07	170	1000	1.2	-40	+90
63	38	70	1800	40	0.2	126	1000	1.4	-20	+60
63	38	70	4000	45	0.1	170	1000	1.4	-30	+80
80	48	88	1600	20	0.15	100	1000	1.6	-20	+60
80	48	88	2800	40	0.1	200	1200	1.6	-30	+80
100	60	110	1200	35	0.125	200	1200	1.8	-25	+60
110	66	121	580	35	0.2	200	1200	2	-20	+50
125	75	138	560	35	0.2	200	1200	2.4	-15	+50

Notes:

- 1, Tantalum capacitors can't been measured by multimeter (Easily cause irreversible damage and lead to reject)
- 2, Capacitance, DF measure frequency: 100Hz,DC offset voltage $U=2.2^{0}_{-1.0}\text{V}$, Exchange offset voltage $U=1.0^{0}_{-0.5}\text{V}$ (effective value), measure method is by series equivalent circuit.
- 3, Measure the leakage current above 125℃,please use derated voltage. DLC read within 5 minute.
- 4, Special size and big capacitance products, please negotiate with us