



## THC3W High Energy Tantalum Hybrid Capacitor (Hermetic sealed & Military standard)



### ❖ Feature and Applications

- All tantalum case, laser welding hermetic sealed, Cylindrical, radial leads, polarized;
- With screws, convenient to fix;
- This product is made up of tantalum capacitor and electrochemical capacitor, small size with big capacitance.
- Stable electric performance, high reliability, long life, large energy density per unit volume,
- Used as battery in energy conversion circuit and power pulse circuit, Perform energy storage, filter, power-off delay in circuit. Widely use in aircraft, radar, ship, tank, satellite, aerospace equipment etc.
- Standard: GJB733A-96, QJ/PWV358-2011

### ❖ How to order: THC3W-50V30000 $\mu$ F-M: 100pcs

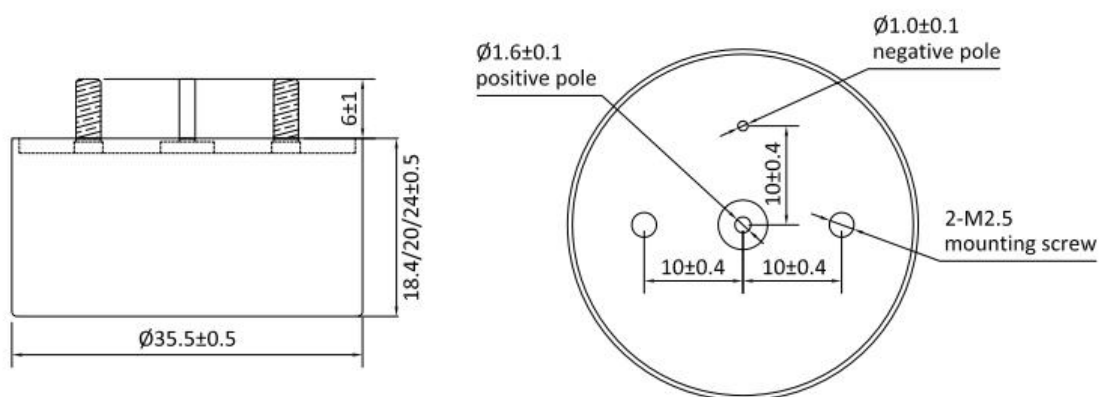
### ❖ Technical Performance

Temperature range: -55 $^{\circ}$ C~+125 $^{\circ}$ C (+125 $^{\circ}$ C use derated voltage)

Store environment temperature: -62 $^{\circ}$ C~+130 $^{\circ}$ C

Capacitance tolerance: K= $\pm$ 10%, M= $\pm$ 20%, Q=-10%~+30%

### ❖ Outline and installation dimensions. Drawing 1 (mm)



THC3W  $\varnothing 35.5 \times 18.4/20/24$  Layout



❖ Table 1 THC3W High Energy Tantalum Hybrid Capacitor's Characteristics. Size see Drawing 1

Rated Voltage (V)	Derated Voltage (V)	Surge Voltage (V)	Cap. ( $\mu$ F)	tg $\delta$ (%) 100Hz	ESR 1KHz ( $\Omega$ )	Max.DCL. ( $\mu$ A)		IMP. ( $\Omega$ ) 100Hz -55 $^{\circ}$ C	Cap. Change (%)		Size DxH (mm)	Weight (g)
						25 $^{\circ}$ C	85 $^{\circ}$ C 125 $^{\circ}$ C		-55 $^{\circ}$ C	+85 $^{\circ}$ C		
10	6	11	200000	190	0.025	300	1800	1.0	-80	+160	35.5x20	145
			230000	190	0.025	300	1800	1.0	-80	+160	35.5x24	165
16	9.5	17.6	120000	170	0.025	300	1800	1.0	-80	+160	35.5x20	145
			140000	170	0.025	300	1800	1.0	-80	+160	35.5x24	165
25	15	27.5	70000	140	0.025	300	1800	1.0	-75	+160	35.5x20	145
			86000	140	0.025	300	1800	1.0	-75	+160	35.5x24	165
35	20	38.5	50000	100	0.025	300	1800	1.0	-70	+160	35.5x20	145
			60000	100	0.025	300	1800	1.0	-70	+160	35.5x24	165
50	30	55	30000	75	0.025	400	2400	1.2	-60	+160	35.5x18.4	115
			30000	75	0.025	400	2400	1.2	-60	+160	35.5x20	145
			32000	75	0.025	400	2400	1.2	-60	+160	35.5x20	145
			33000	75	0.025	400	2400	1.2	-60	+160	35.5x20	145
			33000	75	0.025	400	2400	1.2	-60	+160	35.5x24	165
63	38	70	16000	55	0.035	400	2400	1.4	-50	+100	35.5x20	145
			18000	55	0.035	400	2400	1.4	-50	+100	35.5x24	165
80	48	88	11000	45	0.035	500	2500	1.6	-40	+100	35.5x20	145
			13000	45	0.035	500	2500	1.6	-40	+100	35.5x24	165
100	60	110	4800	40	0.035	500	2500	1.8	-30	+80	35.5x20	145
			6000	40	0.035	500	2500	1.8	-30	+80	35.5x20	145
			7500	40	0.035	500	2500	1.8	-30	+80	35.5x24	165
125	75	138	2200	35	0.05	500	2500	2.4	-25	+50	35.5x20	145
			4500	35	0.05	500	3000	2.5	-25	+50	35.5x20	145
			4700	35	0.05	500	3000	2.4	-25	+50	35.5x20	145
			2800	35	0.05	500	2500	2.4	-20	+40	35.5x24	165
			4500	35	0.05	500	3000	2.0	-25	+45	35.5x24	165
			4700	35	0.05	500	3000	2.0	-25	+45	35.5x24	165

## ❖ 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  $U.=2.2^{0-1.0}V$ , Exchange offset voltage  $U.=1.0^{0-0.5}V$ (effective value), measure method is by series equivalent circuit.
- 3, Measure the leakage current above 125 $^{\circ}$ C, please use derated voltage. DCL. value read at 5 minute.
- 4, Special size and big capacitance products, please consult with GTCAP.