

# Kingtronics®

# YKT-001

## Hybrid Tantalum Capacitor

### FEATURES

- ◆ Tantalum case, Hermetically Sealed, Cylindrical, Radial-lead, Heteropolarity.
- ◆ Commingled by Electrolytic Tantalum Capacitor and Electrochemical Capacitor, Small size, Super Capacitance.
- ◆ Stable in Electrical Performances, High Reliability, Long life-span, Maximum in the Density of Capacitance and Energy
- ◆ Built-in as battery in Energy-converted-circuit & Power-pulsed-circuit, functioned as filtering, storage energy, time-delay circuit.



### SPECIFICATIONS

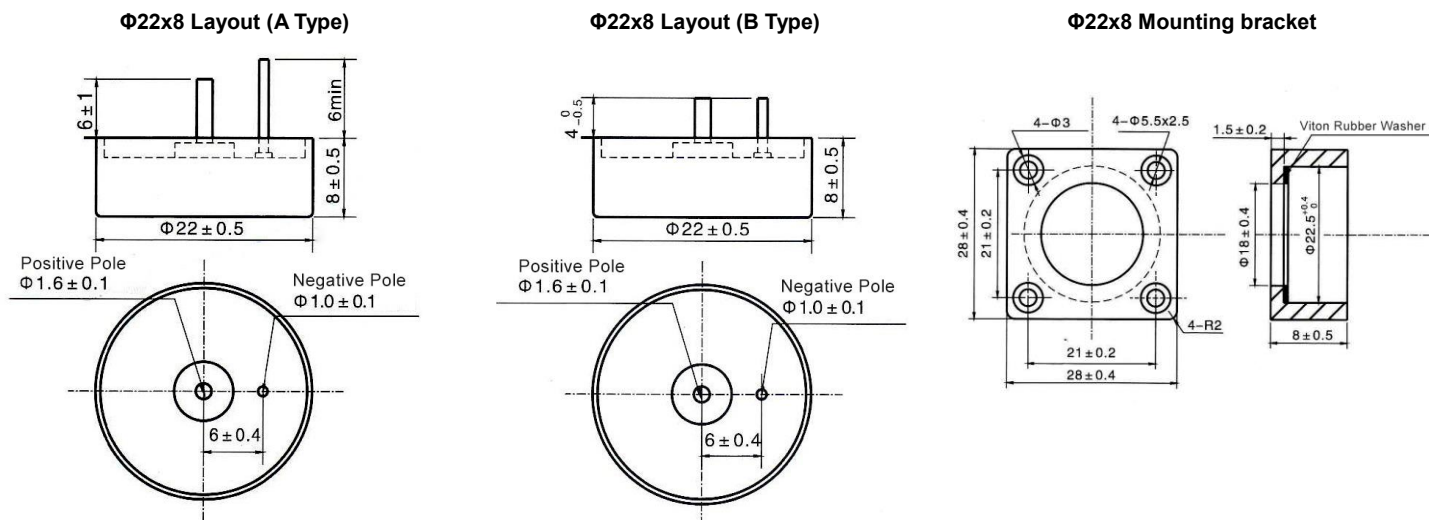
Operating Temperature	-55°C to +125°C (to +125°C, with rated voltage derating)
Storage Temperature	-62°C ~ +130°C
Capacitance Tolerance	Q: (-10%~+30%), K: (±10%), M: (±20%)

Table 1: Electrical Characteristics and Size : 22x8 (Fig. 1)

Rated Voltage (V)	Category Voltage (V)	Surge Voltage (V)	Cap. (µF)	tgδ (%)	ESR (Ω) 1kHz	DCL (µA)		Impedance at (Ω) 100Hz	Capacitance Change at (%)		Dimensions
						25°C	85°C, 125°C		-55°C	-55°C	85°C
10	6	11	8000	80	0.3	100	600	8	-80	+160	22x8
16	9.5	17.6	7000	70	0.3	125	750	8	-80	+160	22x8
25	15	27.5	5000	60	0.3	150	900	8	-75	+150	22x8
35	20	38.5	3500	50	0.3	150	900	8	-70	+140	22x8
50	30	55	2500	46	0.3	155	930	9.6	-60	+120	22x8
63	38	70	1200	35	0.4	85	510	11.2	-50	+80	22x8
80	48	88	860	30	0.4	90	540	12.8	-40	+80	22x8
100	60	110	400	25	0.5	25	150	14.4	-30	+60	22x8
110	66	121	200	20	0.5	25	150	16	-25	+50	22x8
125	75	138	160	20	0.6	25	150	19.2	-20	+50	22x8

Dimensions (unit: mm)

Fig. 1



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Table 2: Electrical Characteristics and Size : 22x12.5 (Fig. 2)

Rated Voltage (V)	Category Voltage (V)	Surge Voltage (V)	Cap. (μF)	tgδ (%)	ESR (Ω) 1kHz	DCL (μA)		Impedance at (Ω) 100Hz	Capacitance Change at (%)		Dimensions
						25°C	85°C, 125°C		-55°C	-55°C	85°C
10	6	11	20000	90	0.1	150	900	2.5	-80	+160	22x12.5
16	9.5	17.6	18000	80	0.1	150	900	2.5	-80	+160	22x12.5
25	15	27.5	13000	70	0.1	150	900	2.5	-75	+150	22x12.5
35	20	38.5	9000	60	0.1	170	1000	2.5	-70	+140	22x12.5
50	30	55	6800	65	0.1	170	1000	1.2	-45	+120	22x12.5
63	38	70	2800	55	0.2	170	1000	3.5	-50	+80	22x12.5
80	48	88	2000	45	0.2	200	1200	3.5	-40	+80	22x12.5
100	60	110	1000	40	0.2	200	1200	4.0	-30	+60	22x12.5
110	66	121	800	30	0.2	200	1200	4.0	-25	+50	22x12.5
125	75	138	600	30	0.3	200	1200	4.0	-20	+50	22x12.5

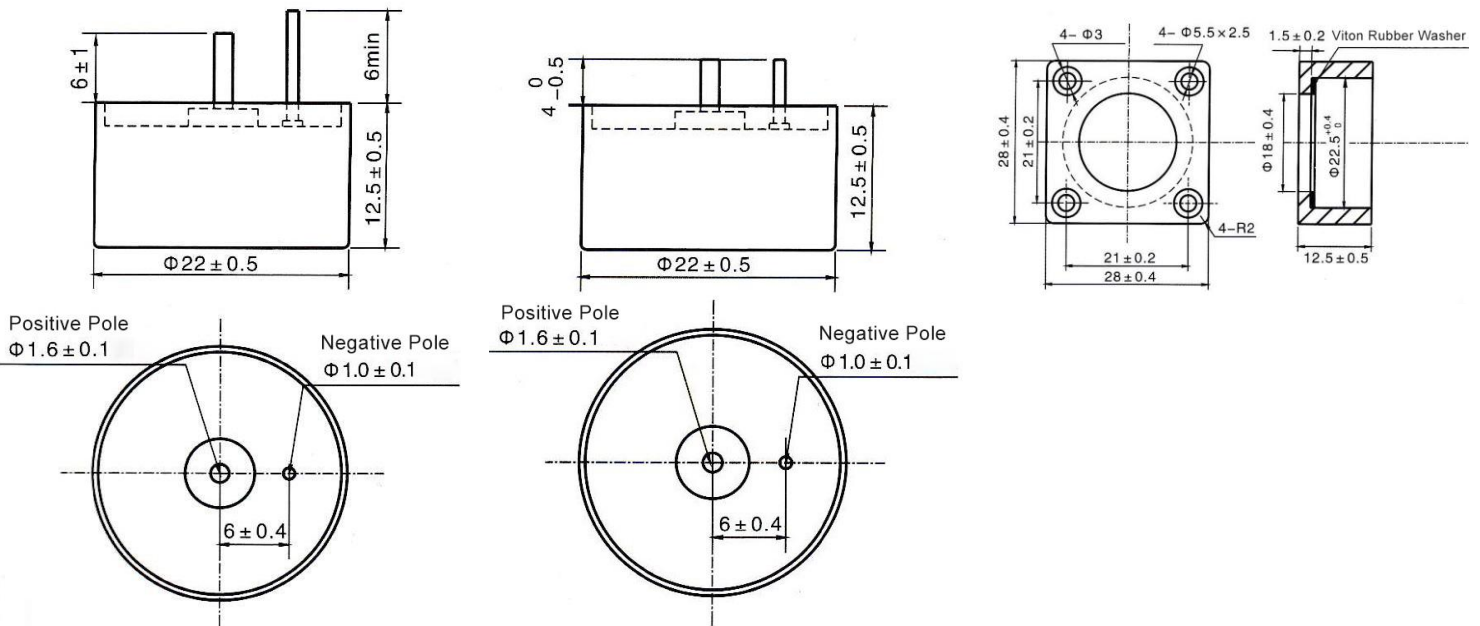
Dimensions (unit: mm)

Fig. 2

Φ22x12.5 Layout (A Type)

Φ22x12.5 Layout (B Type)

Φ22x12.5 Mounting bracket



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**Table 3: Electrical Characteristics and Size : 35.5x8 (Fig. 3)**

Rated Voltage (V)	Category Voltage (V)	Surge Voltage (V)	Cap. (µF)	tgδ (%)	ESR (Ω) 1kHz	DCL (µA)		Impedance at (Ω) 100Hz	Capacitance Change at (%)		Dimensions
						25°C	85°C, 125°C		-55°C	-55°C	85°C
10	6	11	50000	180	0.05	150	900	1	-75	+140	35.5x8
16	9.5	17.6	30000	160	0.05	150	900	1	-70	+140	35.5x8
25	15	27.5	18000	120	0.05	150	900	1	-65	+120	35.5x8
35	20	38.5	12000	90	0.065	150	900	1	-50	+120	35.5x8
50	30	55	8000 9000	65	0.07	170	1000	1.2	-40 -45	+120	35.5x8
63	38	70	1800 4000	40 45	0.200 0.100	126 170	1000	1.4	-20 -30	+60 +80	35.5x8
80	48	88	1600 2800	20 40	0.15 0.1	100 200	1000 1200	1.6	-20 -30	+60 +80	35.5x8
100	60	110	1200 1900	35	0.125	200	1200	1.8	-25	+60	35.5x8
110	66	121	580 1500	35	0.200	200	1200	2	-20	+50	35.5x8
125	75	138	560 1100	35	0.200	200	1200	2.4	-15	+50	35.5x8

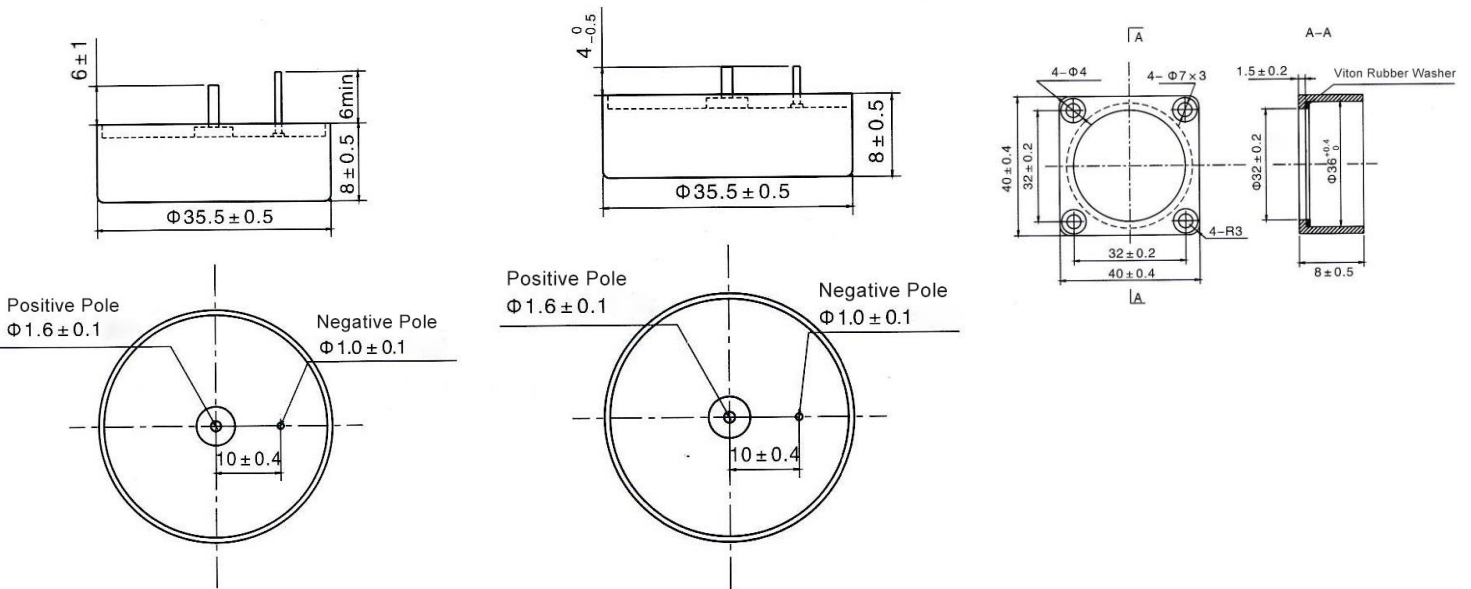
Dimensions (unit: mm)

Fig. 3

Φ35.5x8 Layout (A Type)

Φ35.5x8 Layout (B Type)

Φ35.5x8 Mounting bracket



**Note:**

1. Please do not use multimeter through the measuring procedures (may cause irreversible damage and lead to discard).
2. Capacitance and DF measured at 100Hz,  $U_{-}=2.20^{0}_{-1.0}V$ ,  $U_{+}=1.0^{0}_{-0.5}V$  Test only applied in series equivalent circuit.
3. Voltage derating is applied at +125°C. (The DCL parameter should be read after 5 minutes when it connected to the circuit).
4. Special size and demand could consult with us.

**Kingtronics® International Company**

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