

HCAK86 Series High Frequency Military Wet Tantalum Capacitors

◆ Features :

1. Silver shell package, air-sealing, cylindrical shape, axial lead, outer insulating sleeve, polar capacitor.
2. Excellent and stable electrical properties, high reliability and long life;
3. High-frequency products, low equivalent series resistance, large ripple current resistance, small size;
4. Executive standards: GJB733A-96, QJ/PWV230-2008, Q/PWV230A-2014 (customer special requirements standard)

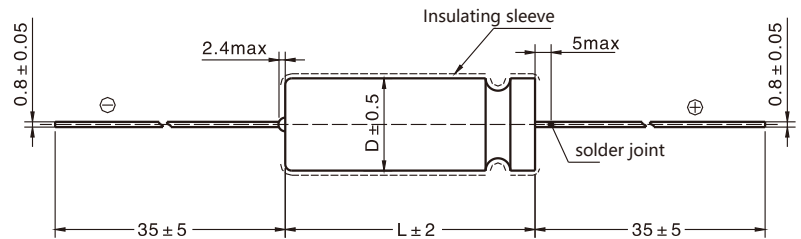


◆ Application :

Suitable for high-frequency circuits of military electronic equipment with reliability requirements in aerospace, aviation, weapons, electronics, ships, communications and other fields.

◆ Technical Specifications :

1. Operating temperature range: -55°C~125°C; for derating design, please refer to Application Guide 4.1. Dimensions and maximum weight: see Figure 1 and Table 1;
2. Tolerance of capacitance: K: ±10%; M: ±20%; rated voltage, category voltage, nominal capacitance: see Table 2
3. Room temperature leakage current: $I_{\circ} \leq 0.0008C_R$, U_R (μA) or 0.8 μA (whichever is greater) High temperature (85°C, 125°C) leakage current: $I \leq 6 I_{\circ}$.
5. Equivalent series resistance (ESR) at room temperature (100kHz): does not exceed the requirements specified in Table 2 Impedance (-55°C, 100Hz): does not exceed the requirements specified in Table 2
6. Loss tangent (tg δ): not exceeding the requirements in Table 2
7. AC ripple current (85°C, 40kHz): no more than specified in Table 2 High and low temperature characteristics: no more than specified in Table 2



Note: When the product diameter $D \geq 12$, the diameter of the negative lead is 1.0 to 0.05mm.

Figure 1

◆ How to order :

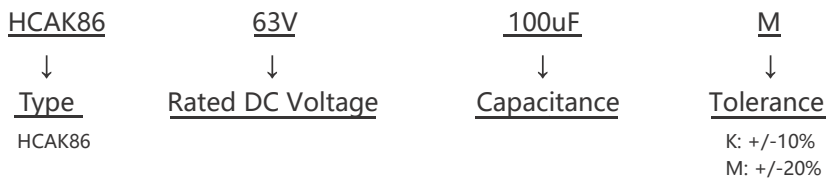


Table 1. Dimensions (Unit: mm)

Case code	Max weight	Dimensions: mm	
		D	L
A	4	4.5	11.6
B	5	6	16
C	10	7	22
D	14	8	25
E	40	14	38

Note:

1. The maximum increase in diameter D and length L of the outer insulating sleeve is 0.4mm and 1.6mm.
2. The dimensions in italics in the table are expanded dimensions.

Table 2.Dimensions (Unit: mm)

Case Code	Rated voltage U_R (v)	Category voltage U_C (v)	Nominal capacitance C_R (μ F)	Capacitance change %			Loss Tangent 25°C 85°C 125°C(%)	85°C/40kHz AC ripple current (mA)	ESR 100kHz 25°C (Ω)	ESR 100Hz -55°C (Ω)
				-55°C	85°C	125°C				
A	16	10	150	-50	+15	+18	18	600	0.3	50
B			220	-55	+18	+20	18	800	0.24	45
C			470	-65	+20	+20	35	1000	0.2	35
D			680	-70	+20	+20	40	1100	0.16	30
A	25	16	100	-35	+13	+15	12	500	0.3	50
B			150	-40	+13	+15	14	650	0.3	45
C			330	-55	+18	+20	20	800	0.13	35
D			470	-60	+20	+20	30	1000	0.12	30
A	40	25	33	-30	+12	+15	8	450	0.35	90
A			47	-35	+12	+15	8	500	0.3	65
B			100	-45	+15	+18	12	600	0.3	40
C			150	-45	+20	+20	15	750	0.23	35
C			220	-50	+20	+20	20	800	0.13	30
D			330	-55	+20	+20	25	900	0.12	25
A	63	40	22	-20	+10	+14	8	400	0.6	120
B			47	-25	+10	+15	10	550	0.25	70
C			100	-30	+12	+20	12	650	0.22	50
D			150	-40	+15	+20	15	800	0.15	40
A	100	63	6.8	-15	+10	+12	8	250	0.85	350
A			10	-15	+10	+12	10	275	0.65	260
A			15	-20	+10	+12	10	300	0.42	160
B			22	-20	+10	+12	10	450	0.35	110
B			33	-25	+10	+12	12	500	0.32	100
C			68	-30	+12	+15	12	550	0.2	50
C			100	-40	+12	+15	12	600	0.16	40
D			130	-45	+15	+17	15	700	0.13	35
E	400	-60	+20	+25	30	1000	0.22	40		
A	125	85	4.7	-15	+8	+10	6	150	1.0	500
B			6.8	-17	+8	+10	8	250	0.85	350
B			10	-20	+10	+13	9	300	0.65	260
B			15	-20	+12	+18	9	350	0.42	160
C			22	-25	+12	+18	9	400	0.4	130
C			33	-30	+12	+18	10	420	0.32	100
C			47	-30	+12	+18	10	450	0.28	70
D			68	-35	+12	+18	10	600	0.2	50

Note:

- The measurement frequency of capacitance and loss tangent is 100Hz, and the measurement method is equivalent series circuit ,
 $U_1=2.2^{+1.0}V$, $U_2=1.0^{+0.5}V$ (effective value);
- When measuring leakage current at 125°C, apply category voltage measurement;
- It is prohibited to use multimeter measuring button capacitors regardless of polarity;
- Special capacity or special size products exceeding this standard can be produced through negotiation with our company;
- The italicized words in the table are extended product technical indicators.

Note: Specification is subject to change without further notice. For more details and updates, please visit our website.

No RoHS Compliant