

**CAK46A Series Hermetically Sealed,with GJB, Solid Electrolytic Tantalum Capacitor**  
 Executive Standard: GJB63B-2001 and Q/MM20125-2003

**Characteristics and Application**

- Metal case encapsulation, Hermitically-sealed, Cylindrical, Axial-leaded,With Insulation Sleeve, Heteropolarity;
- Excellent and stable in electrical characteristics,High reliability, Long life-span,High storability, Small in size,Light in weight,Fine sealing performance;
- High-frenquency products,Low ESR, Withstanding high ripple voltage
- Applicable to Astronavigation, Aerospace, Aviation, Weapons, Electronics,Vessels, Telecommunications,such Electrical equipments with high-frenquency circuit for Military use.
- Ordering information:CAK46A-106K040; 800pcs



**Main Features**

- Operating Temperature Range:-55°C~+125°C (>85°C with rated voltage derating)
- Rated Voltage, Derating Voltage, Nominal Capacitance: See table 2
- Capacitance tolerance:K: ±10%; M: ±20%
- DC leakage At+25°C:  $I_0 \leq 0.01 C_R U_R$  ( $\mu A$ ) or  $0.5 \mu A$  (which is greater)
- Dissipation Factors ( $tg\delta$ ) at 25°C: Not exceed the parameter in table 3
- ESR at 25°C(100KHz): Not exceed the parameter in table 3
- Ripple Current at 25°C(40KHz and 1KHz): Not exceed the parameter in table 3
- Temperature Characteristics: Not exceed the parameter in table 3
- Dimensions and Max Weight: See figure 1 and table 1

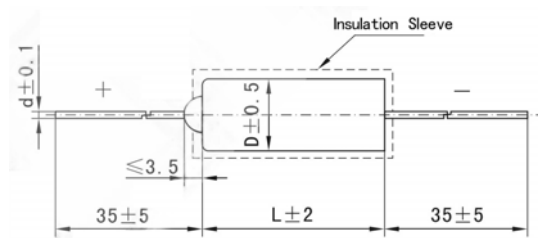


Figure 1

**Table1 Dimensions and Max Weight**

Case Code	Max Weight (g)	Dimensions (mm)		
		D	L	d
2	2.3	4.5	11	0.5
3	3.0	6	14	0.6
4	4.0	8	14	0.8
5	8.0	8	22	0.8

P.S. With insulation sleeve, D could be 0.3mm more at most,and L could be 1.0mm more at most.

**Table2 Rated Voltage, Derating Voltage and Nominal Capacitance**

Rated Voltage $U_R$ (V)	6.3	10	16	25	32	40						
Derating Voltage $U_C$ (V)	4	6.3	10	16	20	25						
Case Code	Nominal Capacitance $C_R$ ( $\mu F$ )											
2	15	22	10	15	4.7	6.8	3.3	4.7	2.2	3.3	2.2	3.3
	33	47	22	33	10	15	6.8	10	4.7	6.8	4.7	6.8
3	68	47	22	33	15	10						
	100	68	100	47	68	22	33	15	10			
4	150	220	150	100	47	68	22	33	22	33	22	33
5	330	220	150	100	47	68	22	33	22	33	22	33

**Table3 Temperature Characteristics**

Rated Voltage UR(V)	Nominal Capacitance C <sub>R</sub> (μF)	Max						Range of Capacitance (%)		
		DCL (μA)		Tgδ 1KHz 25°C (%)	ESR 100KHz 25°C (mΩ)	Ripple Current (A)		-55°C	85°C	125°C
		85°C	125°C			40KHz 25°C	1KHz 25°C			
6.3	15	≤8 I <sub>o</sub>	≤10 I <sub>o</sub>	6	190	1.2	0.4	±10	±8	±12
	22			6	160	1.3	0.5			
	33			6	130	1.7	0.6			
	47			6	110	2.1	0.6			
	68			8	95	2.3	1.0			
	100			8	75	3.3	1.1			
	150			10	65	3.7	2.0			
	220			12	55	4.0	2.4			
	330			12	45	4.3	3.4			
10	10	≤8 I <sub>o</sub>	≤10 I <sub>o</sub>	6	230	1.3	0.4	±10	±8	±12
	15			6	190	1.3	0.5			
	22			6	160	1.4	0.5			
	33			6	130	1.6	0.9			
	47			6	110	1.7	1.1			
	68			8	95	2.1	1.4			
	100			8	75	3.0	2.2			
	150			10	65	3.3	2.9			
	220			10	55	3.9	3.4			
16	4.7	≤8 I <sub>o</sub>	≤10 I <sub>o</sub>	5	330	1.1	0.3	±10	±8	±12
	6.8			5	275	1.2	0.3			
	10			5	230	1.3	0.4			
	15			6	190	1.4	0.5			
	22			6	160	1.4	0.8			
	33			6	130	1.6	1.0			
	47			6	110	1.7	1.4			
	68			8	95	2.1	2.2			
	100			8	75	3.0	2.2			
	150			10	65	3.4	3.1			
25	3.3	≤8 I <sub>o</sub>	≤10 I <sub>o</sub>	4	400	1.1	0.3	±10	±8	±12
	4.7			4	330	1.2	0.4			
	6.8			4	275	1.3	0.4			
	10			5	230	1.4	0.7			
	15			5	190	1.4	0.8			
	22			5	160	1.5	1.1			
	33			5	130	1.7	1.3			
	47			6	110	1.8	2.0			
	68			6	95	2.2	2.4			
	100			8	75	3.1	2.6			
32	2.2	≤8 I <sub>o</sub>	≤10 I <sub>o</sub>	4	500	1.1	0.3	±10	±8	±12
	3.3			4	400	1.1	0.3			
	4.7			4	330	1.2	0.4			
	6.8			4	275	1.3	0.5			
	10			4	230	1.6	0.8			
	15			4	190	1.8	0.9			
	22			5	160	2.1	1.4			
	33			5	130	2.5	1.7			
	47			5	110	2.7	1.9			

Rated Voltage UR(V)	Nominal Capacitance C <sub>R</sub> (μF)	Max						Range of Capacitance (%)		
		DCL (μA)		Tgδ 1KHz 25°C (%)	ESR 100KHz 25°C (mΩ)	Ripple Current (A)		-55°C	85°C	125°C
		85°C	125°C			40KHz 25°C	1KHz 25°C			
40	2.2	≤8 I <sub>o</sub>	≤10 I <sub>o</sub>	4	500	1.2	0.3	±10	±8	±12
	3.3			4	400	1.3	0.3			
	4.7			4	330	1.4	0.4			
	6.8			4	275	1.6	0.6			
	10			4	230	1.7	0.9			
	22			4	160	1.9	1.4			
	33			5	130	2.3	1.8			
	47			5	110	2.9	2.3			

P.S. : 1) The measuring frequency of capacitance is 100Hz(For other electrical parameters like ESR: See table 3).

2) Capacitance,DF and ESR measured at :U<sub>~</sub>=2.2°<sub>-1.0</sub>V, U<sub>~</sub>=1.0°<sub>-0.5</sub>V.

3) When testing the DCL of Capacitors at 125°C,only derating voltage applied.