

Brief Introduction

产品介绍

CA42型系列电容器是烧结阳极、树脂包封的固体电解质钽电容器。产品采用优质的抗潮、阻燃性黄色环氧树脂粉末包封，激光打印标志。其性能符合GB7215-87，Q/PWV602-2003。是为电视机、录像机、计算机、程控交换机、电话、仪器、仪表等民用电子整机配套的理想产品。

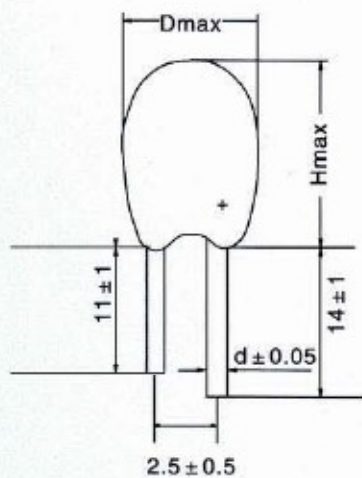


CA42 Series sinter-anode, epoxy-coated solid electrolyte tantalum capacitors are encapsulated with flame-retardant yellow epoxy powder, marked with laser. CA42 Series meets the requirements of standard GB7215-87, Q/PWV602-2003, used in military and civil applications such as TV sets, camcorders, computers, Program-controlled electronic telephone switching system, telephones, instruments and meters.

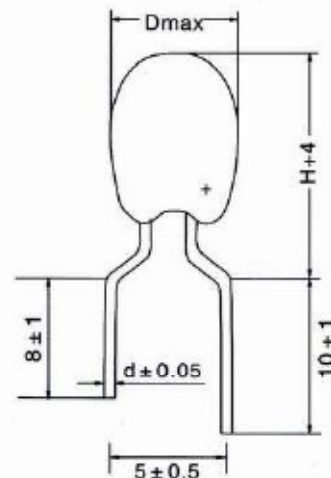
Features

主要性能

- 使用温度范围：-55°C~+125°C(大于85°C以降额电压使用)
- 漏电流：25°C时 $I_0 \leq 0.02C_r U_r$ 或 $1\mu A$ (取大者)
- 容量范围：0.1 μF ~330 μF
- 容量偏差：K级：±10%；M级：±20%
- 外形尺寸：见图和表1
- Operating Temperature Range：-55°C~+125°C；>85°C (with rated voltage derating)
- DC Leakage at 25°C： $I_0 \leq 0.02C_r U_r$ or $1\mu A$
- Capacitance Range：0.1 μF ~330 μF
- Capacitance Tolerance：K：±10%；M：±20%
- Dimensions：See Figure& Table1



A型



B型

表1 外形尺寸

Table1 Dimensions

单位: mm

壳号 Case Size	直径Dmax	高度Hmax	引线直径d±0.05
A	4.4	7.0	0.5
B	5.0	7.5	0.5
C	5.5	9.0	0.5
D	6.3	10	0.5
E	7.2	12	0.5
F	8.5	12.5	0.5
G	9.5	16	0.5

表2 电性能一览表

Table 2 Electrical Features

额定电压 U_r (V) Rated Voltage	4	6.3	10	16	20	25	35 (32)	40	50	
类别电压 U_c (V) Derating Voltage	2.5	4	6.3	10	13	16	20	25	32	
标称电容量 Nominal Capacitance C_n (μ F)	容量代码 Code	外壳代号 Case Size								
0.1	104						A	A	A	
0.22	224						A	A	A	
0.33	334					A	A	A	A	
0.47	474				A	A	A	A	A	
0.68	684			A	A	A	A	A	B/A	
1.0	105			A	A	A	B/A	B	C/B	
1.5	155		A	A	A	A	B/A	B	C	
2.2	225		A	A	A	A	B/A	C/B	C/B	C
3.3	335		A	A	A	B/A	B/A	C/B	C	D/C
4.7	475	A	A	A	B/A	B/A	C/B	C	D/C	D
6.8	685	A	A	B/A	B/A	B	C/B	D/C	D/C	E/D
10	106	A	A	B/A	C/B/A	C/B	C/B	D/C	E/D	F/E
15	156	A	B/A	C/B/A	C/B	C/B	D/C	E/D	F/E	G/F
22	226	B/A	C/B	C/B	D/C/B	D/C	D/C	F/E	G/F	G
33	336	B/A	C/B	D/C/B	D/C	D/C	E/D	G/F	G	
47	476	C/B	D/C/B	D/C	E/D/C	E/D	F/E/D	G		
68	686	D/C	D/C	D/C	E/D	F/E	G/F			
100	107	D/C	D/C	E/D/C	F/E/D	G/F	G			
150	157	E/D	E/D	F/E	G/F	G				
220	227	F/E	F/E	G/F	G					
330	337	F/E	G/F	G						
470	477	G	G							

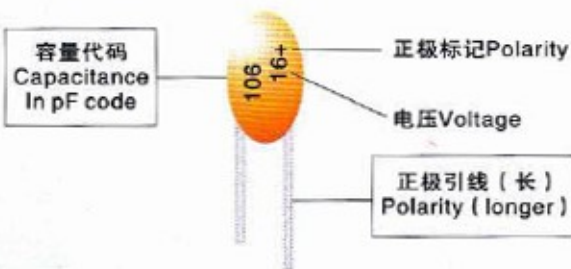
高低温特性

Temperature Performance

容量 Capacitance (μF)	容量变化 Capacitance Change (%)			损耗最大值 Max D.F.(%)			漏电流最大 Max DCL(μA)	
	-55°C	+85°C	+125°C	-55°C	+85°C	+125°C	+85°C	+125°C
≤ 1.0	± 10	± 15	± 25	6	6	6	10I ₀	12.5I ₀
1.5-6.8				8	8	8		
10-68				10	10	10		
100-220				14	14	14		
≥ 330				16	16	16		

标记与包装

Marking & Packaging



卷盘尺寸 (各项说明IEC286-2)

Dimension of tape and reel(per specification IEC286-2)

符合 Symbol	尺寸 Dimensions (mm)		符合 Symbol	尺寸 Dimensions (mm)	
P	12.7 ± 1.0		D	4.0 ± 0.2	
P ₀	12.7 ± 0.3		T	0.5 ± 0.2	
w	18	+1	h	0 \pm 0.2	
		-0.5		H	16 ± 0.5
w ₀	5min		S	2.5 ± 0.5	5.0 ± 0.7
H ₂	9	+0.75	P ₁	5.10 ± 0.5	3.85 ± 0.7
		-0.5			
W ₂	0	+1	P ₂	6.35 ± 0.4	
		0			
H ₁	32.5max		ΔP	$\pm 1.3\text{max}$	

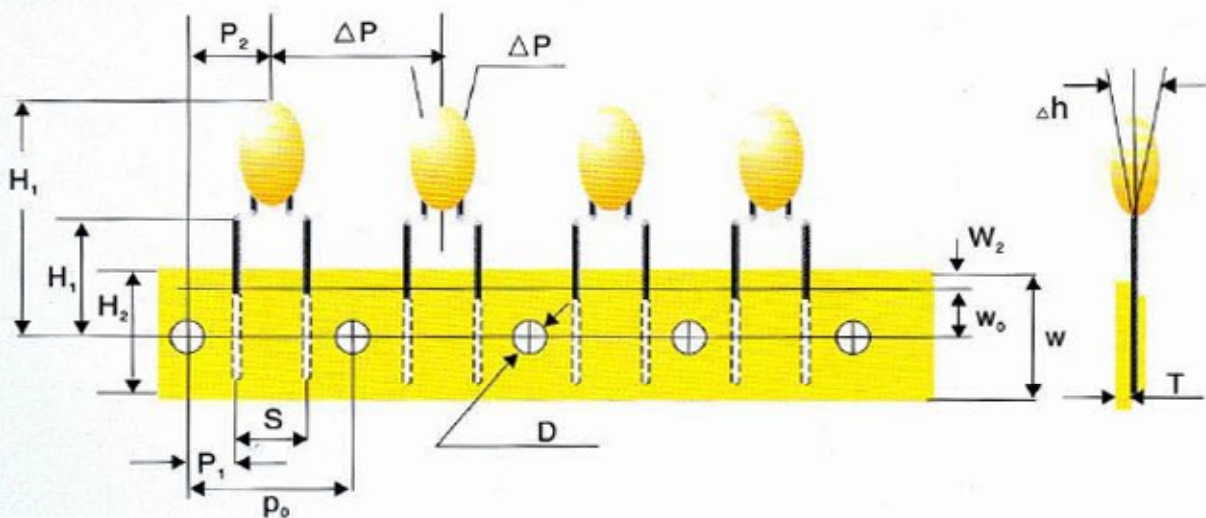
包装形式

Packaging

B:散装 (Bulk)

T:盘式编带 (Reel)

A:弹匣式编带 (Ammo)



订货方法

Order Information

CA42	105	M	035	A	T
类型 Type	标称容量代码 Capacitance Code	容量精度 Tolerance	额定电压 DC Voltage	脚距 Leads Pitch	包装形式 Packaging
CA42	105代表 $10 \times 10^5 \text{pF} = 1\mu\text{F}$ 105=10X10 ⁵ (pF) This is expressed in pico farads. The first tow digits are th significant figures. The third is the number of zeros to follow.	K=±10% M=±20%	4V=004 6.3V=006 10V=010 16V=016 25V=025 35V=035 40V=040 50V=050	A代表2.5mm间距 B代表5.0mm间距	T、A代表编带 B代表散装 T=Tape and reel A=ammo pack B=bulk pack

表3 电性能一览表

Table 3 Electrical Features

额定电压 U_R (V) Rated Voltage	标称容量 Nominal Capacitance C_R (μF)	壳号 Case Size	漏电流 DCL(μA) Max.	损耗角正切 $\text{tg}\delta$ (%) Max
4 V (2.5V 125°C)				
4	4.7	A	1.00	6
4	6.8	A	1.00	6
4	10	A	1.00	8
4	15	A	1.20	8
4	22	B/A	1.76	8
4	33	B/A	2.64	8
4	47	C/B	3.76	8
4	68	D/C	5.44	8
4	100	D/C	8.00	10
4	150	E/D	12.00	12
4	220	F/E	17.60	12
4	330	F/E	26.40	14
4	470	G	37.60	14
6.3 V (4V 125°C)				
6.3	2.2	A	1.00	6
6.3	3.3	A	1.00	6
6.3	4.7	A	1.00	6
6.3	6.8	A	1.00	6
6.3	10	A	1.26	8
6.3	15	B/A	1.89	8
6.3	22	C/B	2.77	8
6.3	33	C/B	4.16	8
6.3	47	D/C/B	5.92	8
6.3	68	D/C	8.57	8

额定电压 U_R (V) Rated Voltage	标称容量 Nominal Capacitance C_R (μF)	壳号 Case Size	漏电流 DCL(μA) Max.	损耗角正切 $\text{tg}\delta$ (%) Max
6.3	100	D/C	12.60	10
6.3	150	E/D	18.90	12
6.3	220	F/E	27.72	12
6.3	330	G/F	41.58	14
6.3	470	G	59.22	14
10 V (6.3V 125°C)				
10	1.5	A	1.00	6
10	2.2	A	1.00	6
10	3.3	A	1.00	6
10	4.7	A	1.00	6
10	6.8	B/A	1.36	6
10	10	B/A	2.00	8
10	15	C/B/A	3.00	8
10	22	C/B	4.40	8
10	33	D/C/B	6.60	8
10	47	D/C	9.40	8
10	68	D/C	13.60	8
10	100	E/D/C	20.00	10
10	150	F/E	30.00	10
10	220	G/F	44.00	10
10	330	G	66.00	12
16V (10 V 125°C)				
16	0.68	A	1.00	6
16	1.0	A	1.00	6
16	1.5	A	1.00	6

(续) 表3 电性能一览表

Table 3 Electrical Features

额定电压 U _r (V) Rated Voltage	标称电容量 Nominal Capacitance C _r (μF)	壳号 Case Size	漏电流 DCL(μA) Max.	损耗角正切 tgδ(%) Max
16	2.2	A	1.00	6
16	3.3	A	1.06	6
16	4.7	B/A	1.50	6
16	6.8	B/A	2.18	6
16	10	C/B/A	3.20	8
16	15	C/B	4.80	8
16	22	D/C/B	7.04	8
16	33	D/C	10.56	8
16	47	E/D/C	15.04	8
16	68	E/D	21.76	8
16	100	F/E/D	32.00	10
16	150	G/F	48.00	10
16	220	G	70.40	10
20V (13 V 125°C)				
20	0.47	A	1.00	6
20	0.68	A	1.00	6
20	1.0	A	1.00	6
20	1.5	A	1.00	6
20	2.2	A	1.00	6
20	3.3	B/A	1.32	6
20	4.7	B/A	1.88	6
20	6.8	B	2.72	6
20	10	C/B	4.00	8
20	15	C/B	6.00	8
20	22	D/C	8.80	8
20	33	D/C	13.20	8
20	47	E/D	18.80	8
20	68	F/E	27.20	8
20	100	G/F	40	10
20	150	G	60	10
25V (16V125°C)				
25	0.33	A	1.00	6
25	0.47	A	1.00	6
25	0.68	A	1.00	6
25	1.0	A	1.00	6
25	1.5	A	1.00	6
25	2.2	B/A	1.10	6
25	3.3	B/A	1.65	6
25	4.7	C/B	2.35	6

额定电压 U _r (V) Rated Voltage	标称电容量 Nominal Capacitance C _r (μF)	壳号 Case Size	漏电流 DCL(μA) Max.	损耗角正切 tgδ(%) Max
25	6.8	C/B	3.40	6
25	10	C/B	5.00	8
25	15	D/C	7.50	8
25	22	D/C	11.00	8
25	33	E/D	16.50	8
25	47	E/D	23.50	8
25	68	G/F	34.00	8
25	100	G	50.00	10
35 V (20 V 125°C)				
35	0.1	A	1.00	6
35	0.22	A	1.00	6
35	0.33	A	1.00	6
35	0.47	A	1.00	6
35	0.68	A	1.00	6
35	1.0	B/A	1.00	6
35	1.5	B/A	1.05	6
35	2.2	C/B	1.54	6
35	3.3	C/B	2.31	6
35	4.7	C	3.29	6
35	6.8	D/C	4.76	6
35	10	D/C	7.00	8
35	15	E/D	10.50	8
35	22	F/E	15.40	8
35	33	G/F	23.10	8
35	47	G	32.90	8
40 V (25V 125°C)				
40	0.1	A	1.00	4
40	0.15	A	1.00	4
40	0.22	A	1.00	4
40	0.33	A	1.00	4
40	0.47	A	1.00	4
40	0.68	A	1.00	4
40	1.0	B	1.00	4
40	1.5	B	1.20	6
40	2.2	C/B	1.76	6
40	3.3	C	2.64	6
40	4.7	D/C	3.76	6
40	6.8	D/C	5.44	6
40	10	E/D	8.00	8
40	15	E	12.00	8

Table 3 Electrical Features

表3 电性能一览表

额定电压 $U_r(V)$ Rated Voltage	标称容量 Nominal Capacitance $C_n(\mu F)$	壳号 Case Size	漏电流 DCL(μA) Max.	损耗角正切 $tg\delta(\%)$ Max	额定电压 $U_r(V)$ Rated Voltage	标称容量 Nominal Capacitance $C_n(\mu F)$	壳号 Case Size	漏电流 DCL(μA) Max.	损耗角正切 $tg\delta(\%)$ Max
40	22	G/F	17.60	8	50	1.5	C	1.50	6
40	33	G	26.40	8	50	2.2	C	2.20	6
50 V (32V 125°C)									
50	0.1	A	1.00	4	50	3.3	D/C	3.30	6
50	0.22	A	1.00	4	50	4.7	D	4.70	6
50	0.33	A	1.00	4	50	6.8	E/D	6.80	6
50	0.47	A	1.00	4	50	10	F/E	10.00	8
50	0.68	B/A	1.00	4	50	15	G/F	15.00	8
50	1.0	C/B	1.00	4	50	22	G	20.00	8

- 注：1、禁止使用万用表测量钽电容器（极易造成不可逆损伤而导致产品报废）。
 2、电容量、损耗角正切的测试频率为100Hz， $U_r=2.2^{+0.10}V$ ， $U_r=1.0^{+0.05}V$ （有效值）；测量方式采用串联等效电路。
 3、测量125°C漏电流时，请施加类别电压；漏电流参数为5分钟读数。
 4、特殊尺寸要求产品可以同我公司协商生产。

- P.S.: 1 Please do not use multimeter through the measuring procedures.
 2 Capacitance and DF measured at 100Hz, $U_r=2.2^{+0.10}V$, $U_r=1.0^{+0.05}V$, Frequency=100Hz.
 Test only applied in series equivalent circuit.
 3 Voltage derating is applied at +125°C. (The DCL parameter should be read after 5minutes when it connected to the circuit).
 4 Special size and demand could consult with us.