

CA42 Series

Dipped Radial Tantalum Capacitors

Features

- Epoxy-coated, flame-retardant, water-proof, radial lead, marked with laser
- Small size, excellent and stable electrical performances, long life, good shelf stability
- Lead-free terminals in compliance with RoHS and REACH regulations
- Used for telecommunication, computer, TV, camcorder, telephone, instruments and meters
- Applicable specification SJ/T10856-1996

TEMPERATURE RANGE

-55°C ... +125°C

RATED VOLTAGE

4 – 35 V

CAPACITANCE

0.1 – 330 μ F

Capacitance 0.1–330 μ F = range of the listed part numbers.

Specifications

Operating temperature range	-55°C~+125°C (>85°C with derating)
DC leakage at 25°C	$I_0 \leq 0.02CRUR$ or $1\mu A$ (whichever is greater)
Capacitance range	0.1 μ F~330 μ F, see Table 3
Capacitance tolerance	$\pm 20\%$, $\pm 10\%$, $\pm 5\%$ (for special order)
Case size and dimensions	See Table 1
Temperature characteristics	See Table 2

Table 2 Temperature characteristics

Capacitance (μ F)	ΔC -55°C (%)	ΔC +85°C (%)	ΔC +125°C (%)	DF -55°C (%)	DF +25°C (%)	DF +85°C (%)	DF +125°C (%)
≤ 1.0	± 10	5	± 15	6	4	6	6
1.5~6.8	± 10	5	± 15	8	6	8	8
10~68	± 10	5	± 15	10	8	10	10
100~330	± 10	5	± 15	12	10	12	12
≥ 470	± 10	5	± 15	14	12	14	14

DCL max. (μA): +25°C $I_0 \leq 0.02CRUR$ or $1\mu A$ (refer maximum value); +85°C 10I0; +125°C 5I0

Table 3 Capacitance and rated voltage by case size

UR (V) Rated voltage		4(G)	6.3(J)	10(A)	16(C)	20(D)	25(E)	35(V)
UC (V) Derating		2.5	4	6.3	10	13	16	20
US (V) Surge voltage		5	8	13	20	26	32	40
CR (μF)	Code	4	6.3	10	16	20	25	35
0.1	104							A
0.15	154							A
0.22	224							A
0.33	334							A
0.47	474							A
0.68	684							A
1.0	105				A	A	A	A
1.5	155				A	A	A	B
2.2	225			A	A	A	A	B
3.3	335		A	A	A	B	B	B
4.7	475	A	A	A	B	B	B	C
6.8	685	A	A	A	B	B	B	C
10	106	A	A	B	C	C	C	D
15	156	A	B	B	C	C	D	D
22	226	B	B	C	C	C	D	D
33	336	B	B	C	D	D	D	E
47	476	B	C	C	D	E	E	
68	686	C	D	D	D		E	
100	107	C	D	D	E			
150	157	D	E	E				
220	227	E	E	E				
330	337	E						

Case size letters as printed in Table 3 (original PDF p.2). 21 cells (among the voltages shown) differ from the per-voltage tables in the original PDF pp.6–8, which are the source of the 89-row characteristics list (pending manufacturer confirmation). Derated voltage at +125°C for 35 V: Table 3 (original PDF p.2) gives 20 V; the table header on original PDF p.8 gives 35 V→23 V. Both values are shown as printed, pending manufacturer confirmation.

Table 1 Case size and dimensions

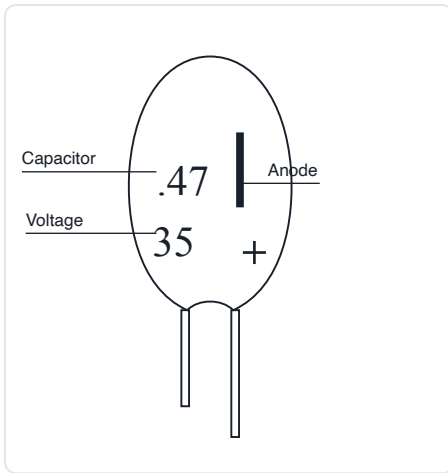
Case size	D (±0.3)	H (±0.5)	L	d (as printed: ±0.5)
A	3.8	6.0	14±1	0.5
B	4.5	7.0	14±1	0.5
C	5.2	8.0	14±1	0.5
D	6.0	9.0	14±1	0.5
E	7.0	11.0	14±1	0.5

Case A–E: D, H, L and d transcribed from the manufacturer's 8-page approval sheet (CA42-25V105), p.3.

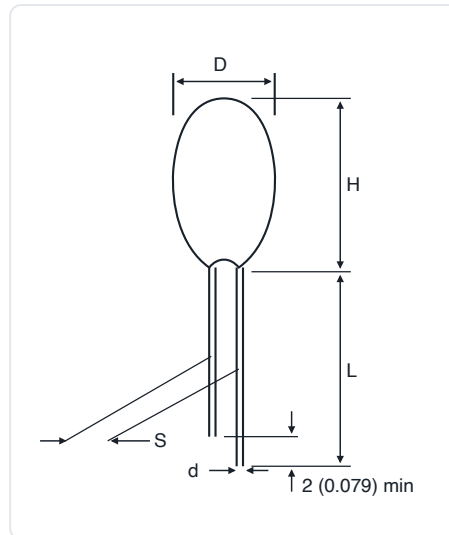
d is printed with a ±0.5 mm tolerance against a nominal 0.5 mm; tolerance pending manufacturer confirmation.

Unit: mm

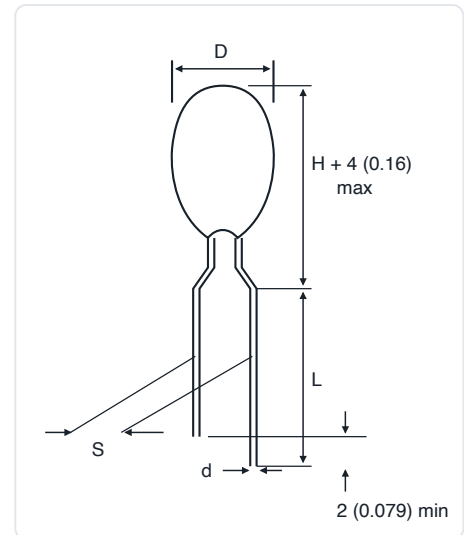
Preferred wire forms (drawings, original PDF p.4)



Screen printing form



PIN A FORM

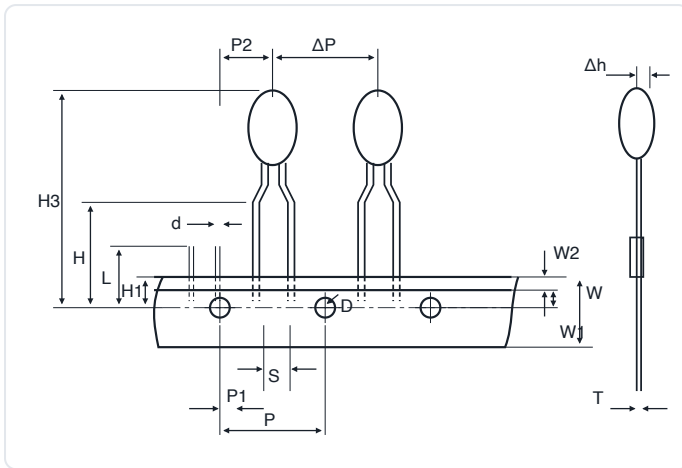


PIN B FORM

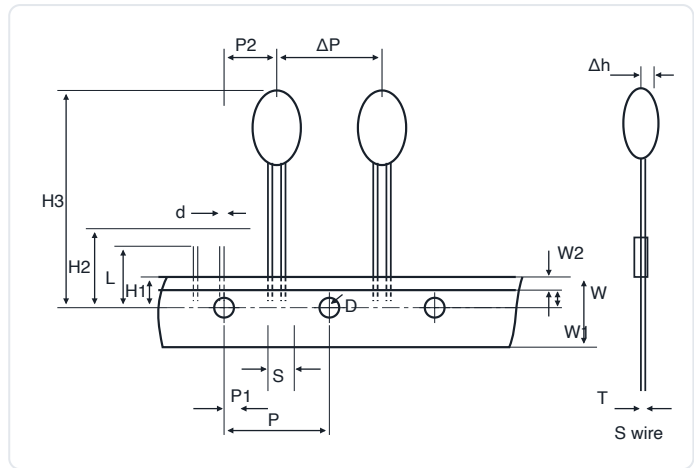
Drawings as printed on original PDF p.4. The original p.4 dimension values are kept in an internal history reference only; Table 1 is the dimension table for this datasheet.

Pitch is specified by pitch code F1 (2.54 mm) / F3 (5.08 mm) in How to order; PIN A / PIN B drawing forms are shown as printed on the original PDF.

Taping package (original PDF p.5)



B PIN TAPING PACKAGE



A PIN TAPING PACKAGE

Designation	Symbol	Dimensions (mm)
Pitch of component	P	13±1.0
Feed hole pitch	Po	13±0.3
Tape width	W	18
Hold down tape width	W1	8±0.5
Hole position	H1	9max
Hold down tape position	W2	3max
Component height	H3	30max
Component alignment	ΔP	±1.3max
Feed hole diameter	D	4.0 ±0.5
Tape thickness	T	0.5±0.2
Component alignment	Δh	±3.0max
Length of snapped lead	L	11max
Lead clinch height	H2	18±0.5
Lead wire spacing	S	2.5±0.5 / 5.0±0.5
Hole center to Pitch	P1	4.0±0.5
Hole center to component	P2	6.0±0.5
Lead diameter	d	0.5±0.5

Unit: mm. Values and tolerances as printed on original PDF p.5 (word spacing restored only).

Pending manufacturer confirmation: d 0.5±0.5 (tolerance equals nominal); W 18 printed without tolerance.

Notes pending manufacturer confirmation

Case size: Table 3 (p.2) vs. per-voltage tables (pp.6–8), 21 cells differ; see note under Table 3.

Derated voltage at +125°C: 35 V→20 V (p.2) vs. 35 V→23 V (p.8).

Capacitance tolerance: ±5% for special order (p.1); part-number tolerance codes list K / M only (pp.3, 8).

Packing code: B: bag / A: ammo per the manufacturer's 8-page approval sheet p.4 (the original PDF printed different codes on p.3 and p.8).

ΔC at +85°C printed '5' without ± sign; DCL at +125°C (5I0) lower than at +85°C (10I0) (p.1).

Table 1 heading states mm (inches); no inch values are printed (p.1).

Page numbers refer to the original KOMÉ PDF (8 pages).

How to order

XRCA42 Model	104 Capacitance code	K Capacitance tolerance K ±10% / M ±20%	350 Rated voltage code 6.3V=6R3 / 10V=100 / 63V=630 / 100V=101	A Case size A–E, see Table 1	F1 Pitch code F1: 2.54 mm / F3: 5.08 mm	B Packing B: bag / A: ammo
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Example: XRCA42104K350AF1B

Characteristics list

Rated voltage UR (V)	Capacitance CR (μF)	Case size	DCL (μA) max	DF (%) max	Part number
4	4.7	A	0.5	6	XRCA42475*004-#
4	6.8	A	0.5	6	XRCA42685*004-#
4	10	A	0.5	8	XRCA42106*004-#
4	15	A	0.6	8	XRCA42156*004-#
4	22	B	0.9	8	XRCA42226*004-#
4	33	B	1.3	8	XRCA42336*004-#
4	47	B	1.9	8	XRCA42476*004-#
4	68	C	2.7	8	XRCA42686*004-#
4	100	C	4	10	XRCA42107*004-#
4	150	D	6	10	XRCA42157*004-#
4	220	E	8.8	10	XRCA42227*004-#
4	330	E	13.2	10	XRCA42337*004-#
6.3	3.3	A	0.5	6	XRCA42335*006-#
6.3	4.7	A	0.5	6	XRCA42475*006-#
6.3	6.8	A	0.5	6	XRCA42685*006-#
6.3	10	A	0.6	8	XRCA42106*006-#
6.3	15	B	0.9	8	XRCA42156*006-#
6.3	22	B	1.4	8	XRCA42226*006-#
6.3	33	B	2.1	8	XRCA42336*006-#
6.3	47	C	3	8	XRCA42476*006-#
6.3	68	C	4.3	8	XRCA42686*006-#
6.3	100	D	6.3	10	XRCA42107*006-#
6.3	150	E	9.5	10	XRCA42157*006-#
6.3	220	E	13.9	10	XRCA42227*006-#
10	2.2	A	0.5	6	XRCA42225*010-#
10	3.3	A	0.5	6	XRCA42335*010-#
10	4.7	A	0.5	6	XRCA42475*010-#
10	6.8	A	0.7	6	XRCA42685*010-#
10	10	A	1	8	XRCA42106*010-#
10	15	B	1.5	8	XRCA42156*010-#
10	22	B	2.2	8	XRCA42226*010-#
10	33	C	3.3	8	XRCA42336*010-#
10	47	C	4.7	8	XRCA42476*010-#
10	68	C	6.8	8	XRCA42686*010-#
10	100	D	10	10	XRCA42107*010-#
10	150	E	15	10	XRCA42157*010-#
10	220	E	22	10	XRCA42227*010-#
16	1	A	0.5	4	XRCA42105*016-#
16	1.5	A	0.5	6	XRCA42155*016-#
16	2.2	A	0.5	6	XRCA42225*016-#
16	3.3	A	0.5	6	XRCA42335*016-#
16	4.7	A	0.8	6	XRCA42475*016-#
16	6.8	A	1.1	6	XRCA42685*016-#
16	10	B	1.6	8	XRCA42106*016-#
16	15	B	2.4	8	XRCA42156*016-#
16	22	C	3.5	8	XRCA42226*016-#
16	33	C	5.3	8	XRCA42336*016-#
16	47	D	7.5	8	XRCA42476*016-#
16	68	D	10.9	8	XRCA42686*016-#
16	100	E	16	10	XRCA42107*016-#
20	1	A	0.5	4	XRCA42105*020-#
20	1.5	A	0.5	6	XRCA42155*020-#
20	2.2	A	0.5	6	XRCA42225*020-#
20	3.3	B	0.7	6	XRCA42335*020-#
20	4.7	B	0.9	6	XRCA42475*020-#
20	6.8	C	1.4	6	XRCA42685*020-#
20	10	C	2	8	XRCA42106*020-#
20	15	D	3	8	XRCA42156*020-#
20	22	D	4.4	8	XRCA42226*020-#
20	33	E	6.6	8	XRCA42336*020-#
20	47	E	9.4	8	XRCA42476*020-#

Rated voltage UR (V)	Capacitance CR (μF)	Case size	DCL (μA) max	DF (%) max	Part number
25	1	A	0.5	4	XRCA42105*025-#
25	1.5	A	0.5	6	XRCA42155*025-#
25	2.2	A	0.6	6	XRCA42225*025-#
25	3.3	A	0.8	6	XRCA42335*025-#
25	4.7	B	1.2	6	XRCA42475*025-#
25	6.8	B	1.7	6	XRCA42685*025-#
25	10	B	2.5	8	XRCA42106*025-#
25	15	C	3.8	8	XRCA42156*025-#
25	22	C	5.5	8	XRCA42226*025-#
25	33	D	8.3	8	XRCA42336*025-#
25	47	E	11.8	8	XRCA42476*025-#
25	68	E	17	8	XRCA42686*025-#
35	0.1	A	0.5	4	XRCA42104*035-#
35	0.15	A	0.5	4	XRCA42154*035-#
35	0.22	A	0.5	4	XRCA42224*035-#
35	0.33	A	0.5	4	XRCA42334*035-#
35	0.47	A	0.5	4	XRCA42474*035-#
35	0.68	A	0.5	4	XRCA42684*035-#
35	1	A	0.5	4	XRCA42105*035-#
35	1.5	A	0.5	6	XRCA42155*035-#
35	2.2	B	0.8	6	XRCA42225*035-#
35	3.3	B	1.2	6	XRCA42335*035-#
35	4.7	B	1.6	6	XRCA42475*035-#
35	6.8	C	2.4	6	XRCA42685*035-#
35	10	C	3.5	8	XRCA42106*035-#
35	15	D	5.3	8	XRCA42156*035-#
35	22	E	7.7	8	XRCA42226*035-#
35	33	E	11.6	8	XRCA42336*035-#

Capacitance and DF measured at U=0.3 V RMS, frequency 120 Hz

DCL is measured at rated voltage after 5 minutes; derating is applied at +125°C

Capacitance tolerance: K ±10%, M ±20% (* in part number)

Pitch code: F1 2.54 mm, F3 5.08 mm (position 6 in the part number)

Packing: B bag, A ammo (last position in the part number)

Lead forms A–F shown in the approval sheet are not part-number codes. Position 5 'A' = case size, last-position 'A' = ammo packing.

Part numbers in the ratings table keep the previous format; case-size and pitch positions for each part number are pending manufacturer confirmation.