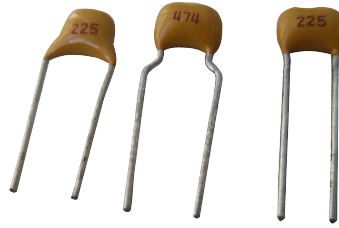


CCBA SERIES



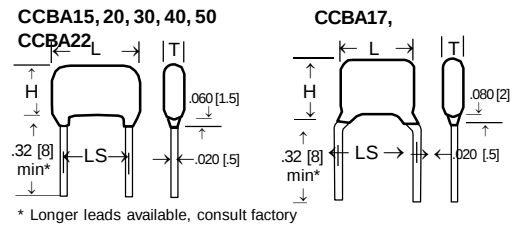
- Industry's widest range- 0.47pF to 10uF, tolerances to 1%
- Space-saving radial lead design
- COG (NPO), X7R, Z5U and Y5V temperature coefficients
- Tape and reel packaging available
- Standard industry sizes
- High voltage models available
- Cut and formed leads available

High-density multilayer construction enables superior performance and capacitance range. Proprietary flame retardant epoxy coating ensures optimum environmental protection and dielectric strength. Non-standard values, increased voltage ratings, custom marking, military screening, cut & formed leads, etc., are available. Matched sets and networks also available.

DIMENSIONS

Jinpei Type	L Max.	H Max.	T Max.	LS ±.024 [0.6]
CCBA15	.165 [4.2]	.150 [3.81]	.150 [3.81]	.100 [2.5]
CCBA17	.150 [3.81]	.150 [3.81]	.150 [3.81]	.200 [5.0]
CCBA20	.200 [5.08]	.200 [5.08]	.150 [3.81]	.100 [2.5]
CCBA22	.200 [5.08]	.200 [5.08]	.150 [3.81]	.200 [5.0]
CCBA30	.300 [7.62]	.217 [5.5]	.150 [3.80]	.200 [5.0]
CCBA40	.413 [10.5]	.394 [10]	.165 [4.2]	.217 [5.5]
* CCBA50	.492 [12.5]	.433 [11]	.165 [4.2]	.295 [7.5]

BODY STYLE (additional styles available)



DIELECTRIC CHARACTERISTICS (typical)

ITEM	(NPO N)	X7R B	Y5V F (Z5U M) ²
Cap. Range, E12 values	0.47 pF - 0.1uF	330 pF - 1uF	1,000 pF - 10uF
Capacitance Tolerance	<10pF: ±1pF, .25pF, .5pF (std) ≥10pF: ±1%, ±2%, ±5%(std), ±10%	±5%, ±10% (std), ±20%	±20% (std), +80/- 20%
Operating Temperature Range	-55°C to +125°C	-55°C to +125°C	-30°C to +85°C
Temperature Characteristics	0 ± 30ppm/°C ³	±15% max over op.temp range	+22%/-82% (+22%/-56%) max over operating temp range
Aging (cap loss/decade hr)	negligible	2%	7%
Voltage Coef (ΔC@ max V)	negligible	-50% to +10% typ	-80% to +20% typ
Dissipation Factor (1KHz, 25°C)	0.15% (+25°C & +125°C) 1.0VRMS, 1MHz for values <1000pF	2.5% Max, 1VRMS	4.0% Max. 0.5 VRMS
Insulation Resistance 25°C (MIL-STD-202-METHOD-302)	100GΩ or 1000MΩ-uF whichever is less	100GΩ or 1000MΩ-uF whichever is less	10GΩ or 1000MΩ-uF whichever is less
Dielectric Strength	3x rated VDC	3x rated VDC	3x rated VDC
Life Test (1000 hours)	2x rated voltage @+125°C ΔC<3% or 0.25pF wig	2x rated voltage at +125°C ΔC<20%	1.5x rated voltage at +85°C ΔC<30%

CAPACITANCE RANGE

Jinpei TYPE	WVDC ¹	STANDARD CAPACITANCE RANGE ¹		
		(NPO N) Std. tol. = 5%	X7R B Std. tol. = 10%	Y5V F (Z5U M) ² Std. tol. = 20%
CCBA15, CCBA17	25	0.47 - 3300pF	100pF - 0.22uF	.01uF - 1.2uF
	50	0.47 - 2200pF	100pF - 0.1uF	.01uF - 1uF
	100	0.47 - 1000pF	100pF - 0.047uF	1000pF - 0.1uF
CCBA20, CCBA22	25	0.47 - 6800pF	100pF - 1uF	.01uF - 1.2uF
	50	0.47 - 4700pF	100pF - 0.47uF	.01uF - 1uF
	100	0.47 - 3900pF	100pF - 0.1uF	.01uF - 0.33uF
CCBA30	25	10 - 10,000pF	470pF - 1uF	.1uF - 1.5uF
	50	10 - 6800pF	470pF - 1uF	.1uF - 1.5uF
	100	5 - 4700pF	100pF - 0.22uF	.1uF - 1.0uF
CCBA40	25	10 - 47,000pF	1000pF - 1uF	.68uF - 4.7uF
	50	10 - 27,000pF	1000pF - 1uF	.68uF - 3.3uF
	100	5 - 22,000pF	100pF - 0.47uF	.68uF - 2.2uF
CCBA50	25	1000pF - 0.1uF	.01uF - 2.2uF	1uF - 10uF
	50	1000pF - 0.047uF	.01uF - 2.2uF	1uF - 6.8uF
	100	1000pF - 0.033uF	.01uF - 1uF	1uF - 2.2uF

¹ Expanded range available, consult factory

² Y5V is standard, Z5U is avail. (Y5V & Z5U are considered interchangeable)

³ ±60ppm <10pF

PART NUMBER EXAMPLE

CCBA15 102 K 1H B B

Series: CCBA15
Capacitance Code: 102
Tolerance Code: K
Voltage Code: 1H
Body Style: B B

B=Bulk (poly bag), A=Ammo,
T=Tape & Reel box,
N=NPO (COG), B=X7R, F=Y5V (M=Z5U)
Voltage 25V=1E 50V=1H 100V=2A 200V=2D

Tolerance Code
F=1%, G=2%, J=5%, K=10%,
M=20%, Z=±80%/-20%,
B=±0.1pF, C=±0.25pF, D=±0.5pF

Capacitance Code
R47=0.47pF, 1R0=1pF, 100=10pF,
101=100pF, 102=1000pF,
103=.01uF (10,000pF),
104=.1uF (100,000pF), 105=1uF,
106=10uF