



MULTILAYER CERAMIC
CAPACITORS

MULTILAYER CERAMIC CHIP CAPACITORS



FEATURES

- Capacitance ranging from 0.5pF to 330μF
- Voltage rating of 4V~200V
- Size 0201 to 2225
- Lead-free terminations, RoHS Compliant

»» APPLICATIONS

Typical applications include critical timing, tuning, circuits requiring low loss, circuits with pulse, high current, decoupling, bypass, filtering, transient voltage suppression, blocking and energy storage.

»» ORDERING INFORMATION

Series	Case size	Dielectric	Rated voltage	Capacitance	Capacitance tolerance	Termination finish	Packaging
CC41-class I	0201 0402 0603 0805 1206 1210 1812	CG	4V 6.3V 10V 16V 25V 35V 50V	Refer to Capacitance and Rated Voltage Range	$<10\text{pF}$ $C=\pm 0.25\text{pF}$ $D=\pm 0.50\text{pF}$ $\geq 10\text{pF}$ $J=\pm 5\%$	N=100%Sn	T=7"Reel
CT41-class II	2220 2225	2X1 X5R	100V 200V				

»» DIMENSIONS

Appearance	Case size	0201	0402	0603	0805	1206	1210	1812	2220	2225
	L	0.60 ± 0.03	1.00 ± 0.20	1.60 ± 0.20	2.00 ± 0.30	3.20 ± 0.30	3.20 ± 0.40	4.50 ± 0.40	5.70 ± 0.50	5.70 ± 0.50
	W	0.30 ± 0.03	0.50 ± 0.20	0.80 ± 0.20	1.25 ± 0.20	1.60 ± 0.30	2.50 ± 0.30	3.20 ± 0.30	5.00 ± 0.50	6.50 ± 0.60
	Tmax	0,35	0,70	1,00	1,45	1,90	2,80	3,50	4,20	4,20
	t	0.15 ± 0.05	0.25 ± 0.10	0.35 ± 0.25	0.50 ± 0.25	0.50 ± 0.35	0.60 ± 0.30	0.90 ± 0.60	0.90 ± 0.60	0.90 ± 0.60

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» ELECTRICAL CHARACTERISTICS

NO.	Item		Specification Limits	Measuring Conditions
1	Capacitance		Within specified tolerance	
2	Dissipation Factor	CG	$C_R \leq 30\text{pF} \quad \text{tg } \delta \leq \frac{1}{(400+20C_R)}$ $C_R > 30\text{pF} \quad \text{tg } \delta \leq 10 \times 10^{-4}$	CG: $C_R \leq 1000\text{pF} \quad 1\text{MHz} \pm 10\% \quad 0.5\text{V} \sim 5\text{V}$ $C_R > 1000\text{pF} \quad 1\text{kHz} \pm 10\% \quad 1\text{V} \pm 0.2\text{V}$
		2X1 X5R	$4\text{V} \leq U_R < 16\text{V} \quad \text{tg } \delta \leq 1000 \times 10^{-4}$ $16\text{V} \leq U_R < 25\text{V} \quad \text{tg } \delta \leq 700 \times 10^{-4}$ $25\text{V} \leq U_R < 50\text{V} \quad \text{tg } \delta \leq 500 \times 10^{-4}$ $U_R \geq 50\text{V} \quad \text{tg } \delta \leq 350 \times 10^{-4}$ ※Note: $C_R \geq 1\mu\text{F} \quad \text{tg } \delta \leq 10\%$; Size 0201,0402,0603 $\text{tg } \delta \leq 10\%$;	2X1 & X5R: $C_R \leq 10\mu\text{F} \quad 1\text{kHz} \pm 10\% \quad 1\text{V} \pm 0.2\text{V}$ $C_R > 10\mu\text{F} \quad 120\text{Hz} \pm 10\% \quad 0.5\text{V} \pm 0.2\text{V}$
3	Insulation Resistance	10000MΩ or 100MΩ·μF whichever is less		Voltage shall be applied with follow conditions: $U_R \leq 500\text{V} \quad U_R$ $U_R > 500\text{V} \quad 500\text{V}$ Voltage applying time shall be 60±5 seconds. Charging and discharging current shall be 50mA or less.
4	Dielectric Strength		No breakdown or visual defects	250% of DC rated voltage for 5 seconds, charging and discharging current shall be 50mA or less.

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» CAPACITANCE AND RATED VOLTAGE RANGE

CC41

Case Size	0201			0402			0603			0805			1206			1210			1812			2220				2225			
	Rated Voltage(V)		50	25	50	50	100	200	50	100	200	50	100	200	50	100	200	50	100	200	25	50	100	200	25	50	100	200	
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» CAPACITANCE AND RATED VOLTAGE RANGE

CT41G

Case Size	0201						0402						0603						0805						1206													
	4	6.3	10	16	25	35	50	4	6.3	10	16	25	50	100	4	6.3	10	16	25	50	100	200	4	6.3	10	16	25	50	100	200	4	6.3	10	16	25	50	100	200
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» CAPCITANCE AND RATED VOLTAGE RANGE

CT41G

Case Size	1210								1812								2220				2225			
Rated Voltage(V)	4	6.3	10	16	25	50	100	200	6.3	10	16	25	50	100	200	16	25	50	100	50	100	200		
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