

MULTILAYER CERAMIC CHIP CAPACITOR



FEATURES

- Capacitance: 0.5pF~330μF
- Voltage: 4V~200V
- Size:0201~2225
- Lead-free terminations, RoHS and REACH 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
CC41-class I	0201 0402 0603 0805 1206 1210 1812	CG	4V 6.3V 10V 16V 25V 35V 50V	Refer to Capacitance	<10pF C=±0.25pF D=±0.50pF	N=100%Sn
CT41-class II	2220 2225	2X1 X5R	100V 200V		≥10pF J=±5%	

Note: 2X1=X7R

»» DIMENSIONS

Appearance	Case size	0201	0402	0603	0805	1206	1210	1812	2220	2225
	L	0.60 ± 0.10	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 ± 0.10	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	0.55	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

Unit:mm

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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		$U_R \leq 100\text{V} \quad 2.5U_R$ $100\text{V} < U_R \leq 200\text{V} \quad 1.5U_R + 100\text{V}$ 5 seconds, charging and discharging current shall be 50mA or less.

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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
cap (pF)	[Grid of capacitance and voltage availability]																																				
cap (μF)	[Grid of capacitance and voltage availability]																																				

 2X1
 X5R

*DF(MAX)=12.5%

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»» CAPACITANCE AND RATED VOLTAGE RANGE

CT41G

Case Size	1210								1812								2220				2225			
	4	6.3	10	16	25	50	100	200	6.3	10	16	25	50	100	200	16	25	50	100	50	100	200		
cap (pF)																								
100																								
120																								
150																								
180																								
220																								
270																								
330																								
390																								
470																								
560																								
680																								
820																								
1000																								
1200																								
1500																								
1800																								
2200																								
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5600																								
6800																								
8200																								
cap (μF)																								
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 2X1
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