

Axial Leads MLCC

Axial-leaded multilayer ceramic capacitors

Features

- RoHS compliant
- Tape and reel, ammo or bulk packaging
- Capacitance marked by colour code or laser marking

DIELECTRIC
C0G · X7R · Z5U · Y5V

RATED VOLTAGE
25 / 50 / 100 V

CAPACITANCE
0.5 pF – 1.2 μF

BODY LENGTH (MAX)
3.8 / 4.3 / 5.1 mm

How to order

CT42 A · Product type Axial leads	6104 B · Capacitance 104 = 6104 ①	Z C · Tolerance +80%~-20%	17 D · Body length 0.17 inch	Y E · Dielectric Y5V	500 F · Rated voltage 50×10 ⁰ V	P G · Packaging Ammo	26 H · Lead style Tape width 26 mm
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Ordering example as given on the original sheet; positions A to H are explained in the tables below. ②

A · Product type			
CT42		Axial leads	
C · Capacitance tolerance			
B	±0.10pF	K	±10%
C	±0.25pF	M	±20%
D	±0.5pF	S	+50%~-20%
F	±1.0%	Z	+80%~-20%
G	±2.0%	P	+100%~-0%
J	±5.0%		
E · Dielectric			
N	C0G (NP0)		
B	X7R		
E	Z5U		
Y	Y5V		
G · Packaging			
T	Tape & reel		
P	Ammo		
B Bulk	Pitch (mm) ③		
	F2	5.08	
	F3	7.5	
	F4	10	

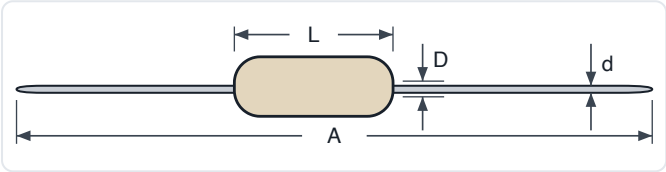
B · Nominal capacitance (pF)	
104	10×10 ⁴
5R6	5.6
Three-figure code; unit: pF (picofarad).	
The first two figures are significant digits; the third figure is the number of zeros that follow.	
A decimal point is shown as "R"; all figures are then significant digits.	
Order code: 104 = 6104, 103 = 5103, 100 = 3101 ①	
D · Body length (inch)	
15	0.15
17	0.17
20	0.20
F · Rated voltage (V)	
250	25×10 ⁰
500	50×10 ⁰
101	10×10 ¹
The first two figures are significant digits; the third figure is the number of zeros that follow.	
H · Lead style	
26	Tape width 26 mm
52	Tape width 52.4 mm



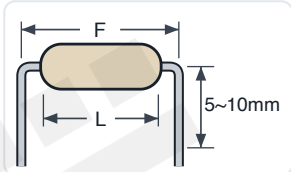
Illustration based on the outline drawing; not a photograph of a specific part.

Sizes, capacitance and voltage

Size code	Dimensions (mm)					Rated voltage	Capacitance range (pF code, see B)		
	L max	D max	F (±0.6) ④		d (±0.05)		C0G (NP0)	X7R	Y5V (Z5U) ⑤
15	3.8	2.2	5.08	10.00	0.45	25 V	0R5 ~ 102	101 ~ 333	222 ~ 224 222 ~ 154
						50 V	0R5 ~ 821	101 ~ 223	
						100 V	0R5 ~ 561	101 ~ 472	
17	4.3	2.5	5.08	10.00	0.45	25 V	0R5 ~ 332	331 ~ 104	103 ~ 105 103 ~ 684
						50 V	0R5 ~ 222	331 ~ 473	
						100 V	0R5 ~ 102	331 ~ 223	
20	5.1	3.0	7.50	10.00	0.45	25 V	0R5 ~ 472	102 ~ 224	103 ~ 125 103 ~ 105
						50 V	0R5 ~ 392	102 ~ 104	
						100 V	0R5 ~ 152	102 ~ 683	



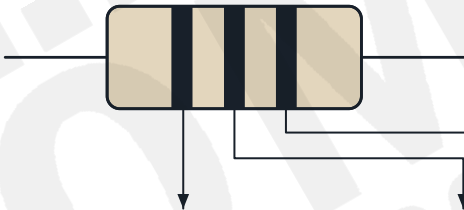
Outline: L, D and d as in the table; A = overall length ⑥



Formed leads (F, L)

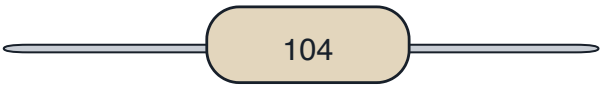
Capacitance marking

Colour code



Colour	Nominal capacitance (pF)		
	1st band	2nd band	3rd band
	1st figure	2nd figure	Multiplier
Black	0	0	×10 ⁰ (1)
Brown	1	1	×10 ¹ (10)
Red	2	2	×10 ² (100)
Orange	3	3	×10 ³ (1000)
Yellow	4	4	×10 ⁴ (10000)
Green	5	5	×10 ⁵ (100000)
Blue	6	6	
Purple	7	7	
Gray	8	8	
White	9	9	

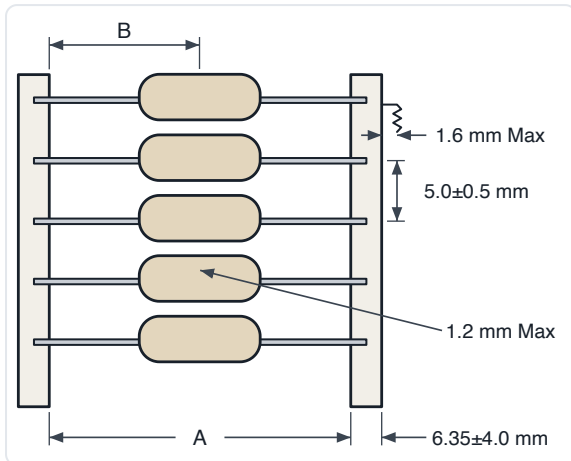
Laser marking



Nominal capacitance	
Code	Value (pF)
104	10×10 ⁴
5R0	5.0

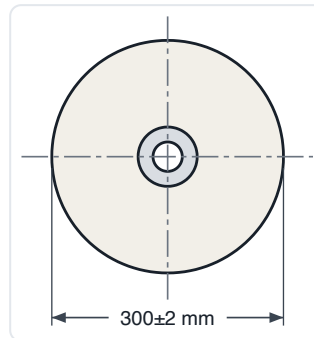
Packaging

Tape and reel

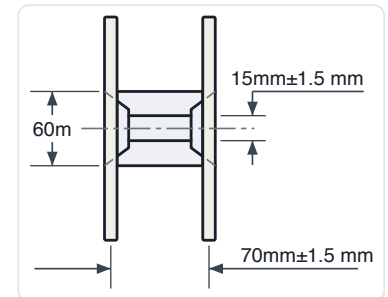


Taping: A and B as in the table ⑦

Lead style	A (mm)	B (mm)
Tape width 26 mm	26±1.5	13±0.76
Tape width 52.4 mm	52.4±1.5	26.2±0.76

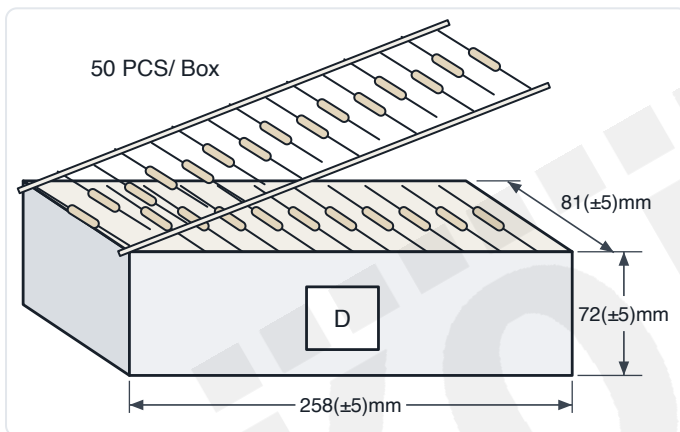


Reel, front view

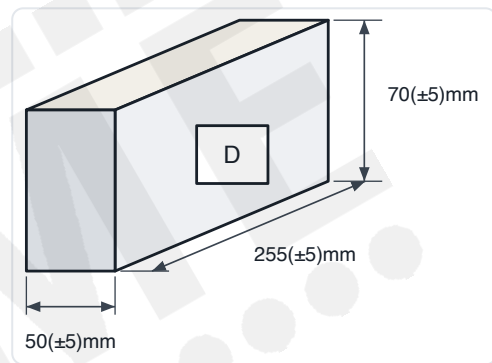


Reel, side view ⑧

Ammo packaging



Ammo box, lid open ⑨ ⑩



Ammo box, closed ⑩

Packaging quantity

Size code	Tape and reel (pcs)	Ammo (pcs)	Bulk (pcs)
15	5000	5000 (4000)	1000 (500)
17	5000	5000 (4000)	1000 (500)
20	2500	2500	500

* According to customer requirements. ⑪

Notes

- ① Position B: the example uses the four-figure code 6104, while B describes a three-figure code; the original sheet equates 104 = 6104, 103 = 5103 and 100 = 3101 (100 and 101 differ in the last pair) — subject to manufacturer confirmation.
- ② The original ordering example shows one further, unlabelled blank position between A and B; its use is not stated — subject to manufacturer confirmation.
- ③ Bulk lists pitch codes F2, F3 and F4, but position G is a single letter; how the pitch code is ordered is not shown — subject to manufacturer confirmation.
- ④ F (±0.6): each size has two values (5.08 / 10.00; 7.50 / 10.00) without sub-headings; their meaning is not stated — subject to manufacturer confirmation.
- ⑤ Y5V (Z5U): two ranges per size for three rated voltages; the voltage each range belongs to is not shown — subject to manufacturer confirmation.
- ⑥ The outline drawing marks an overall length A, but no value for A is given — subject to manufacturer confirmation.
- ⑦ Taping drawing: the dimension 6.35±4.0 mm is printed with a tolerance of ±4.0 mm — subject to manufacturer confirmation.
- ⑧ Reel side view: one dimension is printed as '60m'; the unit is unclear — subject to manufacturer confirmation.
- ⑨ The ammo box drawing states '50 PCS/ Box'; the quantity table gives 5000 (4000) and 2500 pcs for ammo — subject to manufacturer confirmation.
- ⑩ The two ammo box drawings give different box dimensions; which box applies is not stated — subject to manufacturer confirmation.
- ⑪ Packaging quantity: the figures in brackets are not explained, and the note is not linked to any entry — subject to manufacturer confirmation.