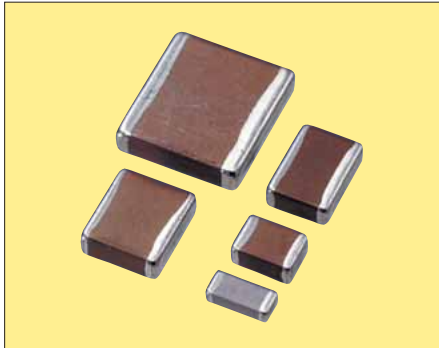




Features

- Voltage Rating from 250V to 5000V
- Smallest High Voltage Capacitors available
- High reliability

Applications

- Power supply
- Backlighting of LCD screen
- DC-AC Converter
- Switching circuit

How to Order

1808 H A 220 K A T 2 A
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

① Dimensions (See Table)

② Rated Voltage

P	250V	W	2500V
C	600V	H	3000V
A	1000V	J	4000V
S	1500V	K	5000V
G	2000V		

③ Temperature Characteristic

A	COG	C	X7R
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④ Capacitance Code (pF)

(2 significant digits and number of zeros)

ex.		102	1,000
100	10	223	22,000
101	100	224	220,000

⑤ Capacitance Tolerance

COG:J	±5%	X7R:K	±10%
K	±10%	M	±20%
M	±20%	Z	+80-20%

⑥ Failure Rate (A : not applicable)

⑦ Termination (T: Nickel Barrier Solder Plate)

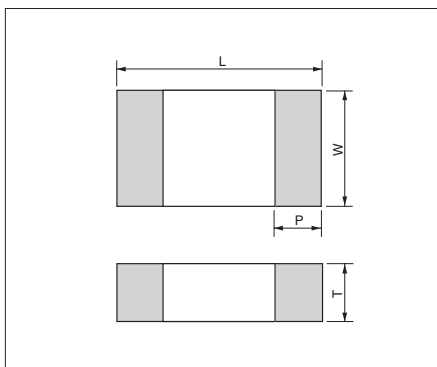
⑧ Tape & Reel

1	7" reel. Embossed tape
2	7" reel. Paper tape
9	Bulk pack

⑨ Special Code

A	Standard
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Dimensions



(Unit : mm)

Size	L	W	T	P
1206	3.20±0.20	1.60±0.20	1.52max	0.25 to 0.76
1210	3.20±0.20	2.50±0.20	1.70max	
1808	4.57±0.25	2.03±0.25	2.03max	
1812	4.50±0.30	3.20±0.20	2.54max	0.25 to 1.02
1825	4.50±0.30	6.40±0.30	2.54max	
2220	5.60±0.30	5.10±0.40	2.00max	
2225	5.72±0.25	6.35±0.25	2.54max	
3640	9.14±0.25	10.2±0.25	2.54max	

Specifications

Item	COG	X7R
Capacitance Range	10pF to 0.047μF	1000pF to 0.56μF
Capacitance Tolerance	±5%, ±10%, ±20%, +80/-20%	±10%, ±20%, +80/-20%
Temperature Characteristic	0±30ppm/°C (-55°C to +125°C)	±15% (-55°C to +125°C)
tanδ(25°C)	0.1% max (C≤100pF, 1.0Vrms, 1MHz) (C>100pF, 1.0Vrms, 1kHz)	2.5% max (1.0Vrms, 1kHz)
Insulation Resistance(25°C)	100,000MΩ min or 1000Ω / Farads min, Whichever less	
Insulation Resistance(125°C)	10,000MΩ min or 100Ω / Farads min, Whichever less	
Dielectric Strength	120% rated voltage	

COG Dielectric Maximum capacitance (Unit: pF)

Size L(mm) W(mm) Tmax.	1206	1210	1808	1812	1825	2220	2225	3640
Rated Voltage	3.20±.25 1.60±.25 1.50	3.20±.20 2.49±.20 2.03	4.57±.25 2.03±.25 2.03	4.50±.30 3.20±.20 2.54	4.50±.30 6.40±.40 2.54	5.70±.40 5.0±.40 2.54	5.72±.25 6.35±.25 2.54	9.14±.25 10.2±.25 2.54
600	680	1500	2700	5600	12000	12000	15000	47000
1000	470	820	1500	2700	6800	10000	10000	18000
1500	150	330	470	1000	2700	2700	3300	8200
2000	68	150	270	680	1800	2200	2200	5600
2500	—	—	150	390	1000	1000	1200	3900
3000	—	—	100	330	680	680	820	2200
4000	—	—	390	100	220	220	330	1000
5000	—	—	—	—	—	—	—	680

X7R Dielectric Maximum capacitance (Unit: pF)

Size L(mm) W(mm) Tmax.	1206	1210	1808	1812	1825	2220	2225	3640
Rated Voltage	3.20±.25 1.60±.25 1.50	3.20±.20 2.49±.20 2.03	4.57±.25 2.03±.25 2.03	4.50±.30 3.20±.20 2.54	4.50±.30 6.40±.40 2.54	5.70±.40 5.0±.40 2.54	5.72±.25 6.35±.25 2.54	9.14±.25 10.2±.25 2.54
250	—	—	—	0.47μF	1.0μF	1.0μF	1.2μF	—
600	15000	27000	33000	68000	0.15μF	0.15μF	0.22μF	0.56μF
1000	4700	10000	15000	27000	68000	68000	82000	0.22μF
1500	1200	2700	3900	8200	18000	22000	27000	68000
2000	470	1000	1800	4700	8200	10000	12000	27000
2500	—	—	1200	2200	5600	6800	8200	22000
3000	—	—	560	1200	2700	3300	4700	18000
4000	—	—	—	—	—	—	—	6800
5000	—	—	—	—	—	—	—	3300

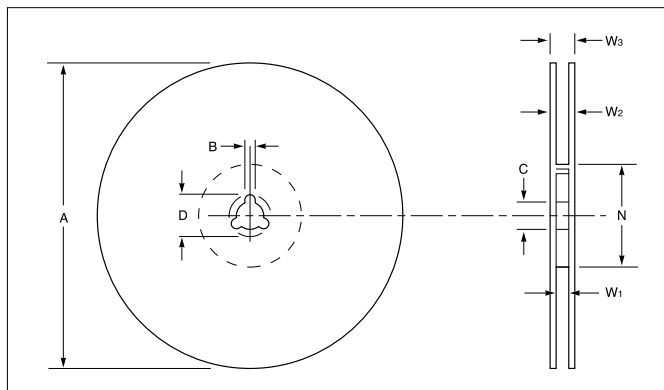
Packaging

• Packaging Quantity

Item Size	Tape size (mm)	7" reel	Carrier Tape	Item Size	Tape size (mm)	7" reel	13" reel	Carrier Tape
1206	8	2,000 (4,000)	Embossed Paper	1808	12	2,000	N/A	Embossed
1210				1812	12	1,000	N/A	
				1825	12	1,000	N/A	
				2225	24	N/A	1,000	

• Reel

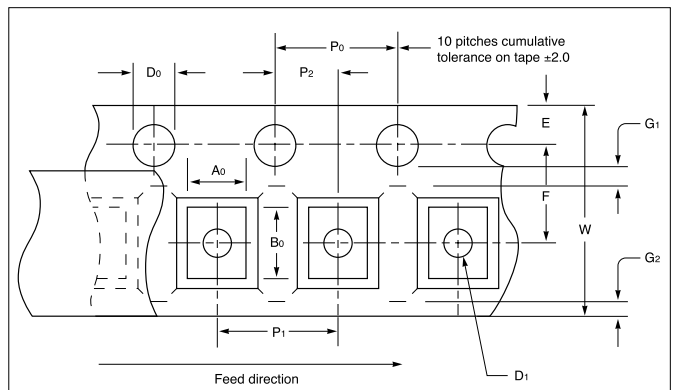
(Unit : mm)



Tape size	A	B	C	D
8mm	178max(7")	1.5min.	13.0±0.20	20.2min
12mm	330max(13")		13.0±0.20	
24mm	360max			
Tape size	N	W ₁	W ₂	W ₃
8mm	50min.	8.4 ^{+1.0} _{-0.0}	14.4max.	7.9min. 10.9max.
12mm		12.4 ^{+2.0} _{-0.0}	18.4max.	11.9min. 15.4max.
24mm	60min.	24.4 ^{+2.0} _{-0.0}	30.4max.	23.9min. 27.4max.

• Carrier Taping

(Unit : mm)



Size	D ₀	E	P ₀	P ₂	G ₁	G ₂
Constant	8.4 ^{+0.10} _{-0.0}	1.75±0.1	4.0±0.10	2.0±0.05	0.75min	0.75min
Size	D ₁	F	P ₁	W		
8mm	1.0	3.5±0.05	4.0±0.1	8.0 ^{+0.3} _{-0.1}		
12mm	1.5	5.5±0.05		12.0±0.3		

* 24mm tape is made to EIA-RS481 specifications.