

# MA SERIES Quality SMT Multilayer Chip Capacitor with Capacitance Range of 0.5 pF to 1.0 uF

## Key Specifications/Features:

- Dielectric type: COG (1B), X7R (2R1), Z5U (2E6), Y5V
- Body size available: 0402, 0603, 0805, 1206, 1210
- Capacitance range:
  - 0.5 pF to 1.0 uF, the choice of capacitance and its body size is determined by the circuit requirement and cost consideration
- Tolerance: +2% (G), +5% (J), +10% (K), +20% (M), +80% -20% (Z)
- Operating temperature:
  - (i) COG(1B) and X7R(2R): -55 degree Celcius to +125 degree Celcius
  - (ii) Z5U(2E6): +10 degree Celcius to +85 degree Celcius
  - (iii) Y5V: -30 degree C to +85 degree C
- Working voltage: 16V DC to 3KV
- Packing type: bulk, taped and reel are available



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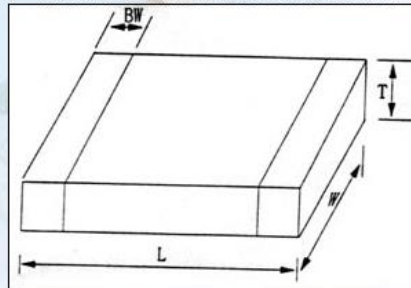
Dielectric	COG(1B)	X7R(2R1)	Z5U(2E6)/Y5V
Features	<ul style="list-style-type: none"> <li>Ultra-strable</li> <li>Low dissipation factor</li> <li>Tight tolerance available</li> <li>Good frequency performance</li> <li>No aging of capacitance</li> </ul>	<ul style="list-style-type: none"> <li>Semi-stable High K</li> <li>Highly volumetric efficiency</li> <li>Highly reliable in high temperate application</li> <li>High insulation resistance</li> </ul>	<ul style="list-style-type: none"> <li>Highest volumetric efficiency</li> <li>non-polar construction</li> <li>General purpose, High K</li> </ul>
Applications	<ul style="list-style-type: none"> <li>LC and RC tuned circuit</li> <li>Filtering</li> <li>Timing</li> </ul>	<ul style="list-style-type: none"> <li>Blocking</li> <li>Coupling</li> <li>Timing</li> <li>Bypassing</li> <li>Frequency discriminating</li> <li>Filtering</li> </ul>	<ul style="list-style-type: none"> <li>Bypassing</li> <li>De-coupling</li> <li>Filtering</li> </ul>

CAPATRONICS Part Numbers are designated as :

MA	0805	CG	101	J	N	500	ER
Capatronics Series	Size Code	Dielectric Code CG COG(1B) XR X7R(2R1) ZU Z5U(2E6)	Capacitance Code -Expressed in PF -First two digits are significant figures. -Third digit denotes number of zeros. -Use R for decimal point for values less than 10pF e.g. 8R2 : 8.2pF 101 : 100pF 223 : 22nF or 0.022uF 104 : 100nF or 0.1uF	Tolerance Code Code Tolerance C ±0.25pf D ±0.5pF G ±2 % J ±5 % K ±10 % M ±20 % Z +80 -20 % P +100 -0 % V GMV	Termination Code N : Nickel-barrier terminations Solder-Plated	Rated Voltage Code 2 significant digits + Number of zeros 250 : 25V 500 : 50V 101 : 100V 501 : 500V	Packaging Code PR Tape & Reel, Cardboard Tape ER Tape & Reel, Embossed Tape No Code Bulk

#### 4. CONFIGURATION AND DIMENSIONS

##### 4.1 CONFIGURATION AND DIMENSION



CODE	DIMENSION(mm)			
	L	W	T	BW
0402	1.0 ± 0.05	0.5 ± 0.05	0.5 ± 0.05	0.2 + 0.15 / -0.1
0603	1.6 ± 0.1	0.8 ± 0.01	0.8 ± 0.01	0.3 ± 0.2
0805	2.0 ± 0.1	1.25 ± 0.1	1.35MAX	0.5 + 0.2 / 0.30 ± 0.05
1206	3.2 ± 0.15	1.6 ± 0.15	1.45MAX	0.5 + 0.2 / + 0.30

##### 4.2 TERMINATION TYPE

