

TYEE’s series of Multilayer Ceramic Chip Capacitors are designed to meet a wide variety of needs. We offer a complete range of products for both general and specialized applications in the industry. We suggest your selection of capacitors based on consideration of the following items:

1. DIELECTRIC TYPE

The choice of dielectric is usually determined by the required capacitance-temperature stability. Darfon offers four types, NP0, X7R, X5R and Y5V for your choice. The features and applications of these four types are specified as follows:

Dielectric	NP0	X7R/X5R	Y5V
Features	<ol style="list-style-type: none"> 1. Ultra-stable 2. Tight tolerance available 3. Low ESR 4. Good frequency performance 5. No aging of capacitance 	<ol style="list-style-type: none"> 1. Semi-stable and High K 2. High volumetric efficiency 3. Highly reliable in high temperature application 4. High insulation resistance 	<ol style="list-style-type: none"> 1. High volumetric efficiency 2. Non-polar construction 3. General purpose, High K
Applications	<ol style="list-style-type: none"> 1. LC and RC tuned circuit 2. Filtering 3. Timing 	<ol style="list-style-type: none"> 1. Blocking 2. Coupling 3. Timing 4. Bypassing 5. Frequency discriminating 6. Filtering 	<ol style="list-style-type: none"> 1. Bypassing 2. De-coupling 3. Filtering

2. CAPACITANCE AND TOLERANCE

Capacitance and its tolerance are determined by circuit requirement and cost consideration.

3. RATED VOLTAGE

Rated voltage is determined by circuit requirement.

4. SIZE

Size is determined by the circuit design and cost consideration.

5. PACKAGING

Specify the packaging of capacitors as bulk or tape and reeled.

TYEE PART NUMBER:

C 1005 NP0 101 J G T ***

PRODUCT CODE

C = Capacitor SMD

SIZE IN mm (EIA CODE)

0603 (0201) 1005 (0402) 1608 (0603) 2012 (0805)
 3216 (1206) 3225(1210) 4520 (1808) 4532 (1812)

T. C.

NP0: $0 \pm 30\text{ppm}/^\circ\text{C}$ -55°C to $+125^\circ\text{C}$
 X7R: $\pm 15\%$ -55°C to $+125^\circ\text{C}$
 X5R: $\pm 15\%$ -55°C to $+85^\circ\text{C}$
 Y5V: $+22/-82\%$ -30°C to $+85^\circ\text{C}$

CAPACITANCE CODE

Expressed in pico-farads and identified by a three-digit number. First two digits represent significant figures. Last digit specifies the number of zeros. (Use 9 for 1.0 thru. 9.9pF. Use 8 for 0.5 through 0.99pF)
 (Example: 2.2pF=229 or 0.47pF=478)

TOLERANCE CODE

B: $\pm 0.1\text{pF}$ F: $\pm 1\%$ K: $\pm 10\%$
 C: $\pm 0.25\text{pF}$ G: $\pm 2\%$ M: $\pm 20\%$
 D: $\pm 0.5\text{pF}$ J: $\pm 5\%$ Z: $+80/-20\%$

VOLTAGE CODE

C:6.3V E:16V G:50V J:200V P:1kV R:3KV
 D:10V F:25V H:100V L:500V Q:2KV S:4KV

PACKAGING CODE

T: Paper tape reel $\Phi 180\text{mm}$ (7")
 P: Embossed tape reel $\Phi 180\text{mm}$ (7")
 N: Paper tape reel $\Phi 250\text{mm}$ (10")
 D: Embossed tape reel $\Phi 250\text{mm}$ (10")
 A: Paper tape reel $\Phi 330\text{mm}$ (13")
 E: Embossed tape reel $\Phi 330\text{mm}$ (13")
 B: Brick, loose in bag
 C: Bulk cassette

INTERNAL CONTROL CODE