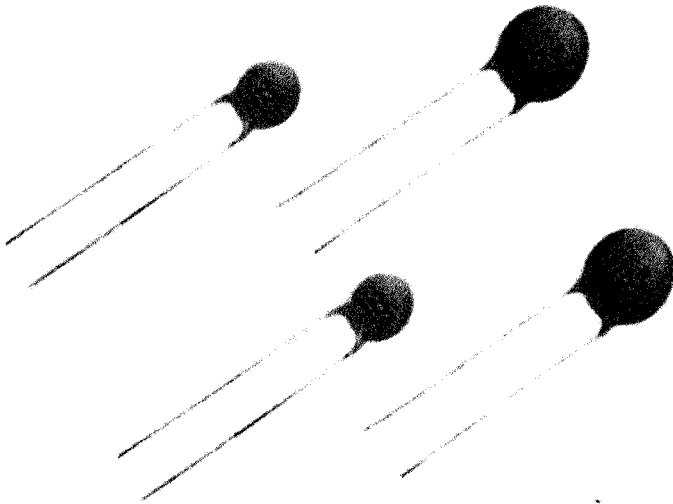




## TYPE CS1 fixed ceramic dielectric capacitors



### Features and usage

This capacitor has characteristics of small volume large capacitance. High colse frequency. Excellent temperature coefficient, The capacitors are suitable for exceed High frequency, wide band pass close by circuit and coupling capacitor or used circuit of dissipation factor and insulation Resistance low demand.

The capacitor is round chip phenolic package seal round wire lead out of one direction and this capacitor is suitable for printed circuit installation.

### Important specifications and test

- 1) Rated voltage (DC): 16V; 25V; 50V (63V)
- 2) Nominal capacitance:  
Values in compliance with IEC63. Norm E12 series.  
Test conditions: Test voltage: 0.1Vrms  
Test frequency: 1KHz  
Test temperature:  $25 \pm 2^\circ\text{C}$
- 3) Capacitance tolerances:  
 $\pm 10\%$ (K);  $\pm 20\%$ (M);  $\pm 80\%$ -20%(Z)
- 4) Dissipation factor:  
Y5P.Y5U.Y5V.  $U_R = 16\text{V}$ :  $\text{tg } \delta \leq 7 \times 10^{-2}$   
 $U_R = 25\text{V}; 50\text{V}$ :  $\text{tg } \delta \leq 5 \times 10^{-2}$   
Test conditions: Test voltage: 0.1Vrms  
Test frequency: 1KHz  
Test temperature:  $25 \pm 2^\circ\text{C}$
- 5) Insulation resistance:  
 $C_R \leq 25\text{nF}$ :  $I_R \geq 1000\text{M}\Omega$   
 $C_R > 25\text{nF}$ :  $I_R \cdot C_R \geq 10\text{s}$   
Test conditions: Test voltage =  $U_R$ , Insulation  
Resistance behind most test in one minute,  
Inside Resistance of Measurable modifier accord with  
 $r \cdot C_R \leq 1\text{S}$ , charge current  $\leq 50\text{mA}$ .
- 6) Withstand Voltage:  
 $U_R$  No breakdown or are one minute Inside Resistance of  
power source accord with  $r \cdot C_R \leq 1\text{S}$ , charge current  $\leq 50\text{mA}$ .



## TYPE CS1 fixed ceramic dielectric capacitors

Shape and Dimension table

| Dimension code | Dimension |     |     |     |     | Lead Style |
|----------------|-----------|-----|-----|-----|-----|------------|
|                | D         | H   | L   | F   | D   |            |
| 04             | 4.5       | 3.5 | 1.5 | 2.5 | 0.5 | a,b,c      |
| 05             | 5.0       | 3.5 | 1.5 | 2.5 | 0.5 | a,b,c      |
| 06             | 6.3       | 3.5 | 1.5 | 5   | 0.5 | a,b,c      |
| 07             | 7.0       | 3.5 | 1.5 | 5   | 0.5 | a,b,c      |
| 08             | 8.0       | 3.5 | 1.5 | 5   | 0.5 | a,b,c      |
| 09             | 9.5       | 4   | 1.5 | 5   | 0.5 | a,b,c      |
| 10             | 10        | 4   | 1.5 | 5   | 0.6 | a,b,c      |
| 12             | 12.5      | 4   | 1.5 | 5   | 0.8 | b          |

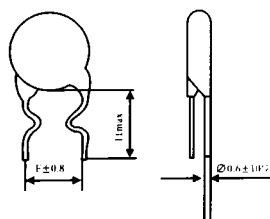
Temp characteristic table

| ELA character Code | Temp Range       | Allowable Cap shift | IEC Code | MAR.Code |
|--------------------|------------------|---------------------|----------|----------|
| Y5P                | -30 °C to +85 °C | ±10%                | 2B4      | B        |
| Y5U                | -30 °C to +85 °C | +22/-56%            | 2E4      | D (or E) |
| Y5V                | -30 °C to +85 °C | +22/-82%            | 2F4      | F        |

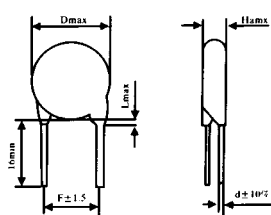
Product specifications

| Dimension code | Rated Voltage | Temperature performance coefficient |         |              |         |              |         |
|----------------|---------------|-------------------------------------|---------|--------------|---------|--------------|---------|
|                |               | Y5P (B)                             |         | Y5U (DorE)   |         | Y5V (F)      |         |
|                |               | Cap.sp                              | cap.tol | Cap.sp       | cap.tol | Cap.sp       | cap.tol |
| 05             | 16V           | 2200-10000                          | KM      | 20000-47000  | M,Z     | 22000-100000 | Z       |
| 06             |               | 22000                               |         | 33000-50000  |         | 100000       |         |
| 07             |               |                                     |         | 100000       |         |              |         |
| 08             |               | 47000                               |         | 100000       |         | 220000       |         |
| 10             |               | 100000                              |         | 220000       |         | 330000       |         |
| 12             |               |                                     |         |              |         | 470000       |         |
| 04             | 25V           |                                     | KM      |              | M,Z     | 10000-22000  | Mz      |
| 05             |               | 1500-10000                          |         | 22000-470000 |         | 33000-47000  |         |
| 06             |               | 15000-22000                         |         | 47000-68000  |         | 47000-100000 |         |
| 07             |               | 33000                               |         | 100000       |         | 100000       |         |
| 08             |               | 33000-47000                         |         | 100000       |         |              |         |
| 09             |               | 68000                               |         |              |         | 220000       |         |
| 10             |               | 100000                              |         | 220000       |         | 220000       |         |
| 04             | 50V<br>(63V)  |                                     | KM      |              | M,Z     | 10000-22000  | Z       |
| 05             |               | 1500-8200                           |         | 15000-33000  |         | 33000-47000  |         |
| 06             |               | 10000                               |         | 47000        |         | 47000-68000  |         |
| 07             |               | 22000                               |         | 68000        |         | 100000       |         |
| 08             |               | 33000                               |         | 100000       |         | 100000       |         |
| 09             |               | 47000                               |         |              |         |              |         |
| 10             |               | 47000                               |         |              |         | 220000       |         |
| 12             |               | 100000                              |         |              |         |              |         |

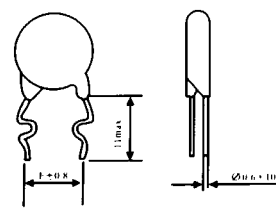
Outline Figure



Type(a)-kink Type



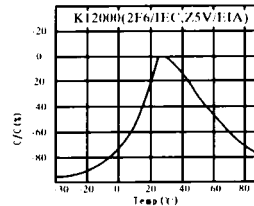
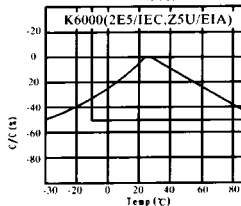
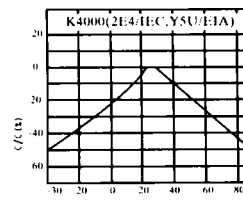
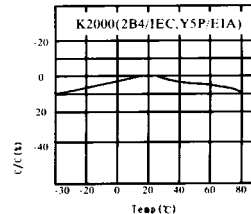
Type(b)-straight Lead



Type(c)-kink Type

Temp characteristic

Class II/III(KK/KS)(CTI/CSL)



Nominal cap.code

| Nominal cap(PF) | Nominal cap.code |
|-----------------|------------------|
| 1               | 1                |
| 10              | 10               |
| 100             | 101              |
| 1000            | 102              |
| 10000           | 103              |
| 100000          | 104              |

Cap.Tolerance

| Cap.Tolerance | Code |
|---------------|------|
| +0.25PF       | C    |
| +0.5PF        | D    |
| +5%           | J    |
| +10%          | K    |
| +20%          | M    |
| +50%          | S    |
| -20%          | Z    |
| +100%         | H    |