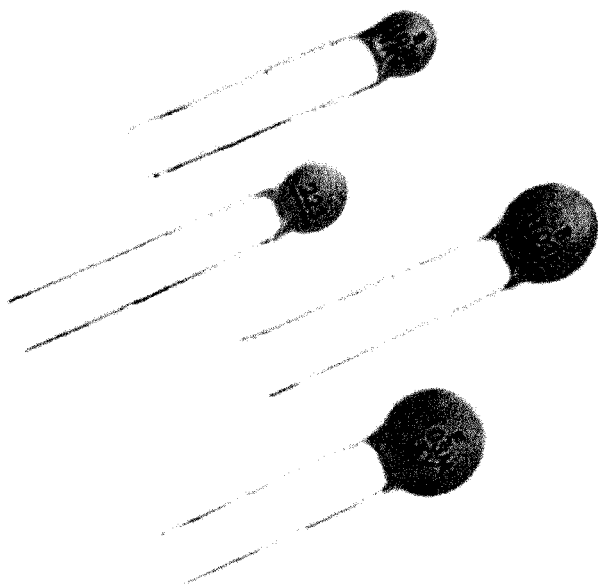


# JW.C

## TYPE CT1, CT81 fixed ceramic dielectric capacitors



### Features and usage

Type CTI capacitor is suited for by pass channel coupling or used in low frequency loss and discriminator circuit that the high stability of capacitance is not important.

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):50V (63V) ; 100V; 160V; 500V; 1KV
- 2) Nominal capacitance:  
Values in compliance with IEC63 Norm E12 series  
Test conditions:Test voltage: $1 \pm 0.2V_{rms}$   
Test frequency:1KHz( $CR > 100PF$ )  
1MHz( $CR \leq 100PF$ )  
Test Temperature: $25 \pm 2^{\circ}C$
- 3) Capacitance tolerances:  
 $\pm 5\%(J)$ ;  $\pm 10\%(K)$ ;  $\pm 20\%(M)$ ;  $+80/-20\%(Z)$
- 4) Dissipation factor:Y5E.Y5P.Y5U.Z5U: $tg \delta \leq 3.5 \times 10^{-2}$   
Y5V.Z5U: $tg \delta \leq 5 \times 10^{-2}$   
Test conditions:Test voltage: $1 \pm 0.2V_{rms}$   
Test frequency:1KHz( $CR > 100PF$ )  
1MHz( $CR \leq 100PF$ )  
Test Temperature: $25 \pm 2^{\circ}C$
- 5) Insulation resistance:  
 $CR \leq 25nF$ : $IR \geq 4000M\Omega$   
 $CR > 25nF$ : $IR \cdot CR \geq 100s$   
Test conditions: $U_R < 100V$  Test voltage no large rated standard voltage 10V  
 $100V \leq U_R < 500V$  Test voltage 100V  
 $U_R \geq 500V$  Test voltage 500V  
Insulation Resistance behind most test in one minute,  
Inside Resistance of measurable modifier accord with  
 $r \cdot CR \geq I_s$ .charge current  $\leq 50mA$ .
- 6) Withstand Voltage:  
 $2.5U_R(CT1)$ ,  $1.5U_R + 500V(CT81)$  No breakdown or are one minute  
Inside Resistance of Power source accord with  $r \cdot CR \leq 1S$ ,  
charge current  $\leq 50mA$ .



## TYPE CT1、CT81 fixed ceramic dielectric capacitors

Temp characteristic table

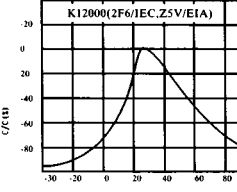
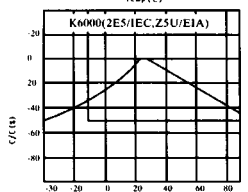
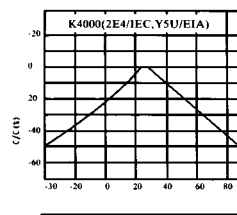
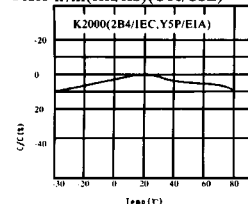
| ELA character Code | Temp Range   | Allowable Cap shift | IEC Code | MAR.Code |
|--------------------|--------------|---------------------|----------|----------|
| Y5E                | -30℃ to +85℃ | +4.7%               | 2A4      | A        |
| Y5P                | -30℃ to +85℃ | +10%                | 2B4      | B        |
| Y5U                | -30℃ to +85℃ | +22/-56%            | 2E4      | D(orE)   |
| Y5V                | -30℃ to +85℃ | +22/-82%            | 2F4      | F        |
| Z5U                | +10℃ to +85℃ | +22/-56%            | 2E6      | E        |
| Z5V                | +10℃ to +85℃ | +22/-82%            | 2F6      | Z        |

Shape and Dimension table

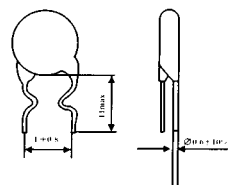
| Dimension code | Dimension |     |     |     |     | Lead Style |
|----------------|-----------|-----|-----|-----|-----|------------|
|                | D         | H   | L   | F   | D   |            |
| 05             | 5.0       | 3.5 | 1.5 | 2.5 | 0.5 | a,b,c      |
| 06             | 6.3       | 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        | 6.3 | 1.5 | 7.5 | 0.6 | a,b,c      |

Temp characteristic

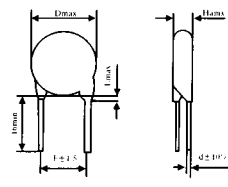
Class II/III(KK/KS)(CT/CSL)



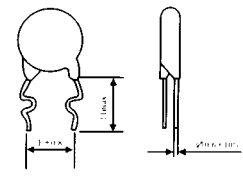
Outline Figure



Type(a)-kink Type



Type(b)-straight Lead



Type(c)-kink Type

Product specifications

| Dimension code | Rated Voltage | Temperature performance coefficient |         |            |         |            |         |             |         |             |         |             |         |
|----------------|---------------|-------------------------------------|---------|------------|---------|------------|---------|-------------|---------|-------------|---------|-------------|---------|
|                |               | Y5E (A)                             |         | Y5P (B)    |         | Y5U (DorE) |         | Y5V (F)     |         | Z5U (E)     |         | Z5V (Z)     |         |
|                |               | Cap.sp                              | cap.tol | Cap.sp     | cap.tol | Cap.sp     | cap.tol | Cap.sp      | cap.tol | Cap.sp      | cap.tol | Cap.sp      | cap.tol |
| 05             | 50V<br>(63V)  | 100-820                             | K,M     | 100-2200   | K,M,Z   | 1000-3300  | M,Z     | 1000-4700   | Z       | 2200-3300   | M,Z     | 3300-15000  | Z       |
| 06             |               | 1000-1200                           |         | 2700-3300  |         | 3900-5000  |         | 5600-10000  |         | 3900-6800   |         | 20000-22000 |         |
| 07             |               | 1500-2200                           |         | 3600-3900  |         | 5600-6800  |         | 10000-12000 |         | 8200-10000  |         |             |         |
| 08             |               |                                     |         | 4700       |         | 8200-10000 |         | 15000-18000 |         | 12000-15000 |         | 33000-40000 |         |
| 09             |               |                                     |         | 5600-6800  |         | 15000      |         | 22000       |         |             |         |             |         |
| 10             |               |                                     |         | 8200-10000 |         | 22000      |         |             |         | 22000       |         | 47000       |         |
| 05             | 500V          | 100-390                             | J,K,M   | 100-680    | K,M,Z   | 470-820    | M,Z     | 1000-1500   | Z       | 470-820     | M,Z     | 1000-1500   | Z       |
| 06             |               | 430-620                             |         | 820-1000   |         | 1000-1500  |         | 1800-2200   |         | 1800-2200   |         | 2200-3300   |         |
| 07             |               | 680-820                             |         | 1200-2200  |         |            |         |             |         |             |         |             |         |
| 08             |               | 1000                                |         | 2700       |         | 1800-3300  |         | 2700-5600   |         | 3300-4700   |         | 4700-6800   |         |
| 09             |               |                                     |         |            |         |            |         |             |         |             |         |             |         |
| 10             |               |                                     |         | 3300-4700  |         | 3900-5600  |         | 6800        |         | 5000-6800   |         | 1000        |         |
| 08             | 1KV           |                                     |         | 100-560    | K,M,Z   | 100-1200   | Z       | 220-1800    | Z       |             |         | 330-2200    | Z       |
| 10             |               |                                     |         | 680-1000   |         | 1500-2200  |         | 2200-3900   |         |             |         | 2700-3900   |         |
| 12             |               |                                     |         | 1200-1800  |         | 2700-3900  |         | 4700-6800   |         |             |         | 4700-6800   |         |
| 14             |               |                                     |         | 2200-2700  |         | 4700-5600  |         | 8200-10000  |         |             |         | 8200-10000  |         |
| 16             |               |                                     |         | 3300       |         | 6800-8200  |         | 12000       |         |             |         |             |         |
| 18             |               |                                     |         | 3900-4700  |         | 10000      |         | 15000-18000 |         |             |         |             |         |
| 20             |               |                                     |         | 5600       |         | 12000      |         | 22000       |         |             |         |             |         |