



# Datasheet

## CA (Axial Leads)

❖ **Brief Introduction:**

CA Series metal-cased solid tantalum electrolytic capacitors

Polarized, **Hermetically sealed.**

Axial leads are characterized in small size, wide operating temperature range, stable performances, high reliability and long life,

CA Series meets the requirements of Chinese National Standard GB8583-88,

Widely used in instruments meters and other electronic equipment for military and civil applications.



❖ **General Characteristics**

Temperature Range: -55°C~+125°C(>85°C use rated voltage derating).

Capacitance Tolerance: M=±20%,K=±10%

DC Leakage (20°C):  $I_0 \leq 0.01 C_R U_R$  or 0.5µA (whichever is greater)

Dissipation factor (20°C): See table 1

Temperature Characteristics: See table 1

Table 1

| Capacitance<br>(µF) | Cap. Change ΔC/C (%) |       |        | MAX.      |       |       |        |                  |                   |
|---------------------|----------------------|-------|--------|-----------|-------|-------|--------|------------------|-------------------|
|                     |                      |       |        | DF(%)Max. |       |       |        | DCL Max.         |                   |
|                     | -55°C                | +85°C | +125°C | -55°C     | +20°C | +85°C | +125°C | +85°C            | +125°C            |
| ≤1                  | ±8                   | ±8    | ±10    | 3         | 3     | 3     | 3      | 8 I <sub>0</sub> | 10 I <sub>0</sub> |
| 1.5~68              |                      |       |        | 5         | 5     | 5     | 5      |                  |                   |
| 100~330             |                      |       |        | 6         | 6     | 6     | 6      |                  |                   |
| 470~1000            |                      |       |        | 8         | 8     | 8     | 8      |                  |                   |

Note: (1) Measured at a voltage derating.

❖ **Drawing ,Dimensions and Max Weight**

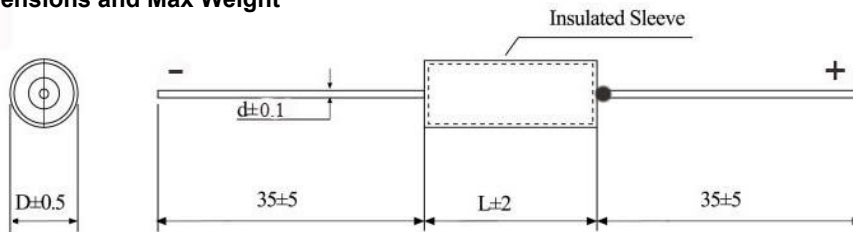


Table 2

| Case code | Weight Max.<br>(g) | Uninsulated sleeve |          | With insulated sleeve |          | d±0.1 (mm) |
|-----------|--------------------|--------------------|----------|-----------------------|----------|------------|
|           |                    | D±0.5 (mm)         | L±2 (mm) | D±0.5 (mm)            | L±2 (mm) |            |
| 1         | 0.7                | 3.2                | 8        | 4                     | 10       | 0.4        |
| 2         | 2.3                | 5                  | 12       | 5.8                   | 14       | 0.6        |
| 3         | 3.0                | 6                  | 14       | 6.8                   | 16       | 0.6        |
| 4         | 4.0                | 8                  | 14       | 8.8                   | 16       | 0.8        |
| 5         | 8.0                | 8                  | 22       | 8.8                   | 24       | 0.8        |
| 6         | 14.0               | 10                 | 22       | 10.8                  | 24       | 0.8        |

Note: When encapsulated with plastic insulation sleeve, dimension D increase 0.8mm and L increase 2mm.



❖ **Nominal Capacitance, Rated voltage, Voltage Derating** Table 3

| Rated voltage $U_R$ (V)    | 6.3                    | 10   | 16   | 25   | 32   | 40   | 63   | 75   | 100   |
|----------------------------|------------------------|------|------|------|------|------|------|------|-------|
| Voltage derating $U_C$ (V) | 4                      | 6.3  | 10   | 16   | 20   | 25   | 40   | 50   | 63    |
| Code                       | Capacitance ( $\mu$ F) |      |      |      |      |      |      |      |       |
| 1                          | 1.0                    | 0.68 | 0.33 | 0.33 | 0.22 | 0.22 | 0.22 | 0.22 | 0.047 |
|                            | 1.5                    | 1.0  | 0.47 | 0.47 | 0.33 | 0.33 | 0.33 | 0.33 | 0.068 |
|                            | 2.2                    | 1.5  | 0.68 | 0.68 | 0.47 | 0.47 | 0.47 |      | 0.1   |
|                            | 3.3                    | 2.2  | 1.0  | 1.0  | 0.68 | 0.68 |      |      | 0.15  |
|                            | 4.7                    | 3.3  | 1.5  | 1.5  | 1.0  | 1.0  |      |      | 0.22  |
|                            | 6.8                    | 4.7  | 2.2  | 2.2  | 1.5  |      |      |      | 0.33  |
|                            | 10                     | 6.8  | 3.3  |      |      |      |      |      |       |
| 2                          | 15                     | 10   | 4.7  | 3.3  | 2.2  | 1.5  | 0.68 | 0.47 |       |
|                            | 22                     | 15   | 6.8  | 4.7  | 3.3  | 2.2  | 1.0  | 0.68 | 0.47  |
|                            | 33                     | 22   | 10   | 6.8  | 4.7  | 3.3  | 1.5  | 1.0  | 0.68  |
|                            | 47                     | 33   | 15   | 10   | 6.8  | 4.7  | 2.2  | 1.5  | 1.0   |
|                            | 68                     | 47   | 22   | 15   | 10   | 6.8  | 3.3  | 2.2  | 1.5   |
|                            |                        |      | 33   |      | 15   |      |      |      |       |
| 3                          | 100                    | 68   | 47   | 22   | 15   | 10   | 4.7  | 3.3  | 2.2   |
|                            |                        | 100  | 68   | 33   |      | 15   |      | 4.7  | 3.3   |
| 4                          | 150                    | 150  | 100  | 47   | 22   | 22   | 6.8  |      |       |
|                            | 220                    |      |      | 68   | 33   | 33   | 10   |      |       |
| 5                          | 330                    | 220  | 150  | 100  | 47   | 47   | 15   |      |       |
|                            | 470                    | 330  | 220  |      | 68   |      | 22   |      |       |
| 6                          | 680                    | 470  | 330  | 150  | 100  | 68   | 33   |      |       |
|                            | 1000                   | 680  | 470  | 220  | 150  | 100  | 47   |      |       |

❖ **How to order**

(Part No.: GTCA 105 K 0161)

| GT         | CA                                   | 105   | K                | 016  | 1           |
|------------|--------------------------------------|---|------------------|--|-------------|
| Brand Name | Type                                 | Capacitance   | Tolerance        | DC voltage   | Case code   |
| Green Tech | Solid Electrolyte Tantalum Capacitor | 105 10X10 <sup>5</sup> (pF)This is expressed in picofarads. The first two digits are the significant figures. The third is the number of zeros to follow. | K=±10%<br>M=±20% | Rated voltage<br>6.3V=006<br>10V=010<br>16V=016<br>25V=025<br>32V=032<br>40V=040<br>63V=063<br>75V=075<br>100V=100 | See table 2 |