

# COATED SOLID ELECTROLYTIC TANTALUM CAPACITOR

## CA 42 Series

KOME

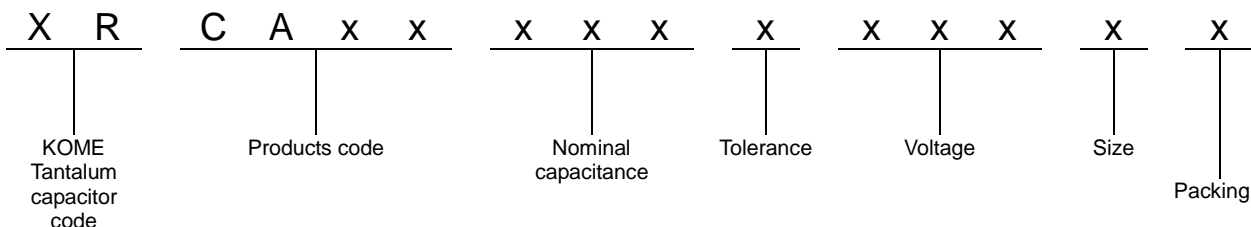
### Brief Introduction.

The CA42 Series sinter-anode, epoxy-coated solid electrolytic tantalum capacitors are encapsulated with flams-retardant yellow epoxy powder, marked with laser. CA42 Series meets and exceeds the requirements of IEC Specification 384-15-3, IECQ Specification QC300201/US0003 and Technical Specification SJ/T10856-96, used in military and civil applications such as TV sets, camcorders, computers, Program-controlled electronic telephone switching system, telephone, instruments and meters.

### Features:

- Operating temperature Range:  $-55^{\circ}\text{C} \sim +125^{\circ}\text{C} > 85^{\circ}\text{C}$  with rated voltage derating
- Rated voltage: see table 1
- DC leakage at  $20^{\circ}\text{C}$  :  $I_o \leq 0.01C_R V_R$  or  $0.5\mu\text{A}$  (whichever is greater)
- Dissipation factor at  $20^{\circ}\text{C}$  : Please see table 3
- Capacitance range:  $0.047\mu\text{F} - 680\mu\text{F}$ , see table 1
- Capacitance tolerance:  $\pm 20\%$ ,  $\pm 10\%$ (for special order)
- Case sizes and dimensions, see table 2
- Temperature characteristics, see table 3

### HOW TO ORDER



### Example:

CA 42 Series:  $\Delta c/c \pm 20\%$ , 35V10uF, Tape packing; XRCA42106M035DT

CA Series:  $\Delta c/c \pm 20\%$ , 10V10uF, Bulk packing; XRCA-106M0102B

CA 301 Series:  $\Delta c/c \pm 20\%$ , 100V10uF, Bulk packing; XRCA301106M1001B

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## Rated Voltage, Nominal Capacitance, Case Sizes

|                   |      |     |     |     |    |    |    |    |    |
|-------------------|------|-----|-----|-----|----|----|----|----|----|
| Rated Voltage     | 3    | 4   | 6.3 | 10  | 16 | 20 | 25 | 35 | 50 |
| Voltage Derating  | 2    | 2.5 | 4   | 6.3 | 10 | 13 | 16 | 20 | 32 |
| Surge Voltage     | 4    | 5.2 | 8   | 13  | 20 | 26 | 33 | 46 | 65 |
| Nominal Capacitor | Size |     |     |     |    |    |    |    |    |
| 0.047             |      |     |     |     |    |    |    | A  | A  |
| 0.068             |      |     |     |     |    |    |    | A  | A  |
| 0.1               |      |     |     |     |    |    |    | A  | A  |
| 0.15              |      |     |     |     |    |    |    | A  | A  |
| 0.22              |      |     |     |     |    |    |    | A  | A  |
| 0.33              |      |     |     |     |    |    |    | A  | A  |
| 0.47              |      |     |     |     |    |    |    | A  | A  |
| 0.68              |      |     |     |     |    |    |    | A  | A  |
| 1.0               |      |     |     |     | A  | A  | A  | A  | B  |
| 1.5               |      |     |     |     | A  | A  | A  | A  | C  |
| 2.2               |      |     |     | A   | A  | A  | A  | B  | C  |
| 3.3               |      |     | A   | A   | A  | B  | B  | B  | D  |
| 4.7               | A    | A   | A   | A   | B  | B  | B  | C  | D  |
| 6.8               | A    | A   | A   | B   | B  | C  | C  | D  | E  |
| 10                | A    | A   | B   | B   | B  | C  | C  | D  | E  |
| 15                | A    | A   | B   | C   | C  | D  | D  | E  | F  |
| 22                | B    | B   | C   | C   | C  | D  | D  | E  | F  |
| 33                | B    | B   | C   | D   | D  | E  | E  | F  |    |
| 47                | C    | C   | D   | D   | D  | E  | E  | F  |    |
| 68                | D    | D   | D   | D   | E  | F  | F  |    |    |
| 100               | D    | D   | E   | E   | E  | F  | F  |    |    |
| 150               | D    | E   | E   | E   | F  |    |    |    |    |
| 220               | E    | E   | E   | F   | F  |    |    |    |    |
| 330               | E    | F   | F   |     |    |    |    |    |    |
| 470               | F    |     |     |     |    |    |    |    |    |
| 680               | F    |     |     |     |    |    |    |    |    |

Table 1

## Dimensions-mm

| Case Size | D (max) | H (max) | h (+0.5mm) | d   |
|-----------|---------|---------|------------|-----|
| A         | 4.0     | 6       | 2.5        | 0.5 |
| B         | 4.8     | 7.2     | 2.5        | 0.5 |
| C         | 5.5     | 8       | 2.5        | 0.5 |
| D         | 6.0     | 9.4     | 2.5        | 0.5 |
| E         | 7.2     | 11.5    | 5.0        | 0.5 |
| F         | 8.2     | 12.5    | 5.0        | 0.5 |

Table 2

## Temperature characteristics

| Capacitance (uF) | Capacitance change (%) |       |        | Dissipation factor Max (%) |       |       |        | Current leakage Max (uA)                                      |                   |                   |
|------------------|------------------------|-------|--------|----------------------------|-------|-------|--------|---|-------------------|-------------------|
|                  | -55°C                  | +85°C | +125°C | -55°C                      | +20°C | +85°C | +125°C | +20°C   | +85°C             | +125°C            |
| <=1.0            | ±10                    | ±15   | ±25    | 4                          | 2     | 4     | 6      | I <sub>o</sub> <= 0.02C <sub>R</sub> V <sub>R</sub><br>or 1uA | 10 I <sub>o</sub> | 12 I <sub>o</sub> |
| 1.5 ~ 6.8        |                        |       |        | 6                          | 4     | 6     | 8      |   |                   |                   |
| 10 ~ 68          |                        |       |        | 8                          | 6     | 8     | 10     |   |                   |                   |
| 100 ~ 680        |                        |       |        | 10                         | 8     | 10    | 12     |   |                   |                   |

Table 3

# COATED SOLID ELECTROLYTIC TANTALUM CAPACITOR

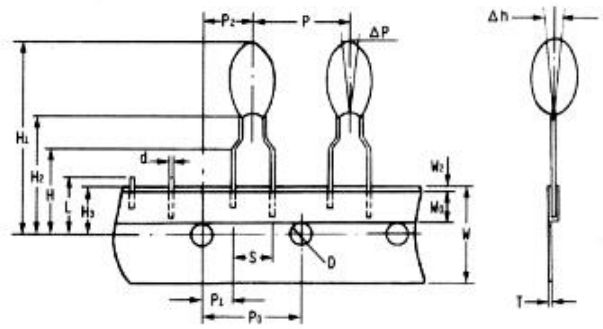
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## Packaging information

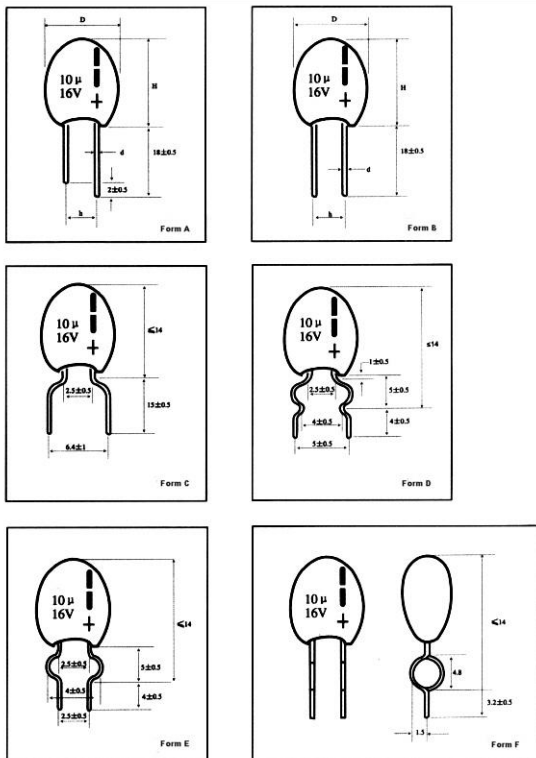
B = Bulk pack

A = Ammo pack (per Specification IEC286-2)



| Symbol         | Dimensions (mm) | Symbol | Dimensions (mm)         |
|----------------|-----------------|--------|-------------------------|
| P              | 12.7 + 1.0      | T      | 0.5 ± 0.2               |
| P <sub>0</sub> | 12.7 + 0.3      | Δh     | 2.0 max                 |
| W              | +1 18 -0.5      | L      | 11 max                  |
| W <sub>0</sub> | 12 + 0.5        | H      | 16 ± 0.5                |
| H3             | +0.75 9 -0.5    | S      | 2.5 ± 0.5   5 ± 0.7     |
| W2             | 1.0 max         | P1     | 5.10 ± 0.5   3.85 ± 0.7 |
| H1             | 32.5 max        | P2     | 6.35 ± 0.4              |
| ΔP             | +1.3 max        | H2     | +2 18 -0                |
| D              | 4.0 ± 0.3       | d      | 0.5 ± 0.05              |

## Lead Styles



## Typical Characteristic curve

