

CB Series

Tantalum Capacitor



Features:

- Lead-Free
- Specially designed of general purpose
- Highly reliable resin dipped type
- Excellent frequency and temperature characteristics
- Non-flammable epoxy resin

Technical Specifications:

| Item | Performance Characteristics | | | | | |
|-----------------------------|---|------|---------------|-------------|---------|--|
| Operating Temperature Range | -55°C to +125°C (>85°C with rated voltage derating) | | | | | |
| Rated Working Voltage Range | 6.3V DC to 50V DC | | | | | |
| Nominal Capacitance Range | 0.1μF to 220μF | | | | | |
| Capacitance Tolerance | ± 20% | | | | | |
| Leakage Current | Not more than 0.01 CrVr or 0.5μA whichever is greater | | | | | |
| Dissipation Factor | Capacitance | ≤1μF | 1.5 to 6.8 μF | 10 to 68 μF | ≥100 μF | |
| | Max. tan δ | 0.04 | 0.06 | 0.08 | 0.1 | |

Temperature Characteristics:

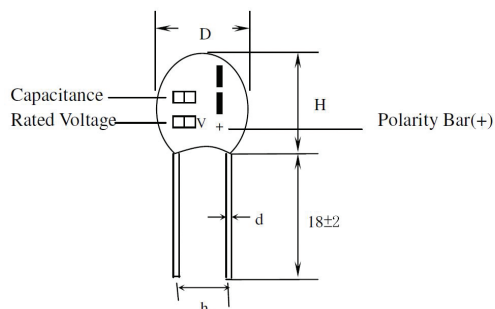
| Cap. (μF) | Change in Cap. (%) | | | DF Max. (%) | | | | DCL max. (μA) | | |
|--------------|--------------------|-------|--------|-------------|-------|-------|--------|--|------------------|--------------------|
| | -55°C | +85°C | +125°C | -55°C | +20°C | +85°C | +125°C | +20°C | +85°C | +125°C |
| ≤1 | ±10 | ±15 | ±25 | 6 | 4 | 6 | 6 | I _o =0.01CrVr 0.5μA (whichever is greater) | 10I _o | 12.5I _o |
| 1.5 ~ 6.8 | | | | 8 | 6 | 8 | 8 | | | |
| 10 ~ 68 | | | | 10 | 8 | 10 | 10 | | | |
| 100 ~ 680 | | | | 12 | 10 | 12 | 12 | | | |

CB Series

Tantalum Capacitor



Appearance & Dimensions:



| Case Size | D Max. | H Max. | h(±0.5mm) | d(±0.05mm) |
|-----------|--------|--------|-----------|------------|
| A | 4.5 | 7 | 2.5 | 0.5 |
| B | 5 | 8 | | |
| C | 5.5 | 9.5 | | |
| D | 6.5 | 11 | | |
| E | 8.5 | 13 | 5 | |
| F | 9.5 | 16.5 | | |

Dimensions : Millimetres

The Range of the Capacitance and Case:

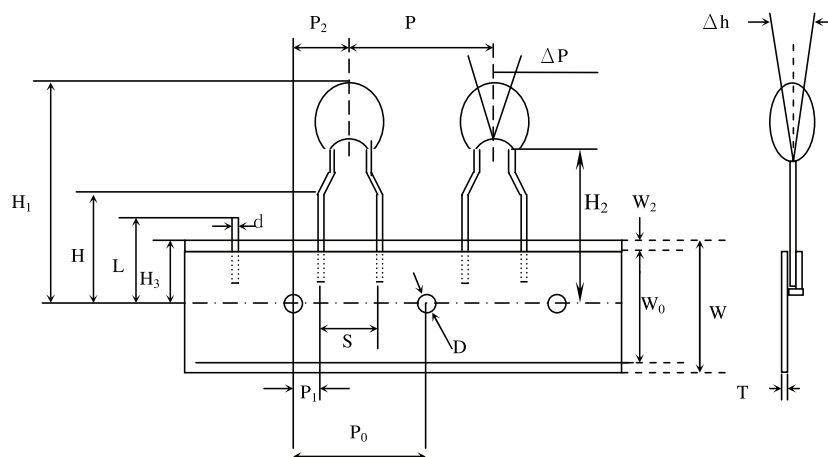
| Capacitance μF | Rated voltage | | | | | | | | |
|-------------------|---------------|----|------|-----|-----|-----|-----|-----|-----|
| | 3V | 4V | 6.3V | 10V | 16V | 20V | 25V | 35V | 50V |
| 0.1 | | | | | | | | A | A |
| 0.15 | | | | | | | | A | A |
| 0.22 | | | | | | | | A | A |
| 0.33 | | | | | | | | 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 | | | | | |

CB Series

Tantalum Capacitor



Taping Dimension:



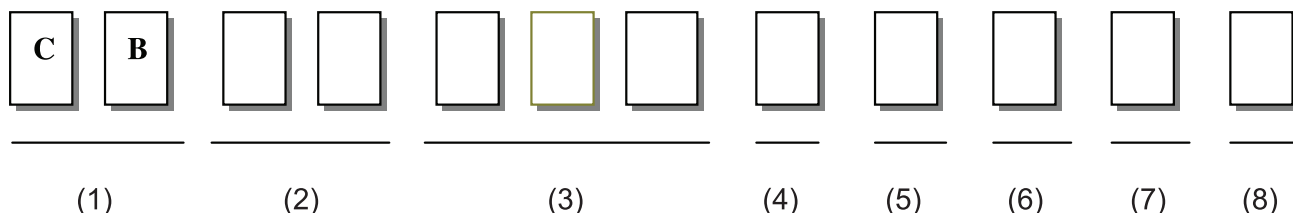
| Symbol | Dimension (mm) | |
|----------------|------------------------------------|----------------|
| P | 12.7 \pm 1 | |
| P ₀ | 12.7 \pm 0.3 | |
| W | 18 ⁺¹ _{-0.5} | |
| W ₀ | 12 \pm 0.5 | |
| H ₃ | 9 ^{+0.75} _{-0.5} | |
| W ₂ | 3 max. | |
| H ₁ | 32.5 max | |
| ΔP | \pm 1.3 max | |
| D | 4 \pm 0.3 | |
| T | 0.5 \pm 0.2 | |
| Δh | \pm 2 max | |
| L | 11 max | |
| H | 16 \pm 0.5 | |
| S | 2.5 \pm 0.5 | 5 \pm 0.5 |
| P ₁ | 5.1 \pm 0.5 | 3.85 \pm 0.7 |
| P ₂ | 6.35 \pm 0.4 | |
| H ₂ | 18-22 | |
| d | 0.5 \pm 0.05 | |

CB Series

Tantalum Capacitor



Taping Dimension:



1. CB represents series number of epoxy-coated solid electrolytic tantalum capacitors.
2. Rated DC voltage Code is expressed in two digits.

| | | | | | | |
|---------------|------|-----|-----|-----|-----|-----|
| Rated Voltage | 6.3V | 10V | 16V | 25V | 35V | 50V |
| Code | 0J | 1A | 1C | 1E | 1V | 1H |

3. Capacitance code: Expressed in Pico farad, 1st two digits represent significant figures and 3rd digit represents multiplier (number of zeros to follow).
4. Capacitance tolerance code is listed as follows:

| | |
|---------------------|----------------|
| Allowable Tolerance | Tolerance Code |
| ±20 | M |

5. Lead Space:

| | |
|--------------|--------|
| Lead Space | Symbol |
| 2.54m/m ±0.5 | 1 |
| 5.08m/m ±0.5 | 2 |

6. Case Code is specified in Appearance & Dimensions in Page 2
7. Wire Length: Wire Length (L) code is listed as follows

| | |
|-----------------|------------------|
| Wire Length (L) | (+)20(-)18 ±1m/m |
| Code | C |

| | | | |
|------------|-----------------|---------|--------------|
| Pack Style | Packing Code: B | Bulk T | Ammo |
| CB | Δ C/C±20% | 35V10μF | CB1V106M1DCB |

CB Series

Tantalum Capacitor



Part Number Table

| Description | Part Number |
|------------------------|--------------|
| Capacitor, 4.7μF, 6.3V | CB0J475M2ACB |
| Capacitor, 6.8μF, 6.3V | CB0J685M2ACB |
| Capacitor, 15μF, 6.3V | CB0J156M2BCB |
| Capacitor, 33μF, 6.3V | CB0J336M2CCB |
| Capacitor, 150μF, 6.3V | CB0J157M2ECB |
| Capacitor, 220μF, 6.3V | CB0J227M2ECB |
| Capacitor, 6.8μF, 10V | CB1A685M2BCB |
| Capacitor, 15μF, 10V | CB1A156M2CCB |
| Capacitor, 68μF, 10V | CB1A686M2DCB |
| Capacitor, 150μF, 10V | CB1A157M2ECB |
| Capacitor, 220μF, 10V | CB1A227M2FCB |
| Capacitor, 3.3μF, 16V | CB1C335M2ACB |
| Capacitor, 15μF, 16V | CB1C156M2CCB |
| Capacitor, 150μF, 16V | CB1C157M2FCB |
| Capacitor, 1.5μF, 25V | CB1E155M2ACB |
| Capacitor, 3.3μF, 25V | CB1E335M2BCB |
| Capacitor, 47μF, 25V | CB1E476M2ECB |
| Capacitor, 68μF, 25V | CB1E686M2FCB |
| Capacitor, 100μF, 25V | CB1E107M2FCB |
| Capacitor, 0.15μF, 35V | CB1V154M2ACB |
| Capacitor, 0.68μF, 35V | CB1V684M2ACB |
| Capacitor, 1.5μF, 35V | CB1V155M2ACB |
| Capacitor, 33μF, 35V | CB1V336M2FCB |
| Capacitor, 0.1μF, 50V | CB1H104M2ACB |
| Capacitor, 0.22μF, 50V | CB1H224N2ACB |
| Capacitor, 0.33μF, 50V | CB1H334M2ACB |
| Capacitor, 0.47μF, 50V | CB1H474M2ACB |
| Capacitor, 0.68μF, 50V | CB1H684M2ACB |
| Capacitor, 1μF, 50V | CB1H105M2BCB |
| Capacitor, 1.5μF, 50V | CB1H155M2CCB |
| Capacitor, 2.2μF, 50V | CB1H225M2CCB |
| Capacitor, 3.3μF, 50V | CB1H335M2DCB |

| Description | Part Number |
|------------------------|--------------|
| Capacitor, 4.7μF, 50V | CB1H475M2DCB |
| Capacitor, 6.8μF, 50V | CB1H685M2ECB |
| Capacitor, 10μF, 50V | CB1H106M2ECB |
| Capacitor, 10μF, 6.3V | CB0J106M2BCB |
| Capacitor, 22μF, 6.3V | CB0J226M2CCB |
| Capacitor, 47μF, 6.3V | CB0J476M2DCB |
| Capacitor, 68μF, 6.3V | CB0J686M2DCB |
| Capacitor, 100μF, 6.3V | CB0J107M2ECB |
| Capacitor, 4.7μF, 10V | CB1A475M2ACB |
| Capacitor, 10μF, 10V | CB1A106M2BCB |
| Capacitor, 22μF, 10V | CB1A226M2CCB |
| Capacitor, 33μF, 10V | CB1A336M2DCB |
| Capacitor, 47μF, 10V | CB1A476M2DCB |
| Capacitor, 100μF, 10V | CB1A107M2ECB |
| Capacitor, 2.2μF, 16V | CB1C225M2ACB |
| Capacitor, 4.7μF, 16V | CB1C475M2BCB |
| Capacitor, 6.8μF, 16V | CB1C685M2BCB |
| Capacitor, 10μF, 16V | CB1C106M2BCB |
| Capacitor, 22μF, 16V | CB1C226M2CCB |
| Capacitor, 33μF, 16V | CB1C336M2DCB |
| Capacitor, 47μF, 16V | CB1C476M2DCB |
| Capacitor, 68μF, 16V | CB1C686M2ECB |
| Capacitor, 100μF, 16V | CB1C107M2ECB |
| Capacitor, 1μF, 25V | CB1E105M2ACB |
| Capacitor, 2.2μF, 25V | CB1E225M2ACB |
| Capacitor, 4.7μF, 25V | CB1E475M2BCB |
| Capacitor, 6.8μF, 25V | CB1E685M2CCB |
| Capacitor, 10μF, 25V | CB1E106M2CCB |
| Capacitor, 15μF, 25V | CB1E156M2DCB |
| Capacitor, 22μF, 25V | CB1E226M2DCB |
| Capacitor, 33μF, 25V | CB1E336M2ECB |
| Capacitor, 0.1μF, 35V | CB1V104M2ACB |

CB Series

Tantalum Capacitor



| Description | Part Number |
|------------------------------|--------------|
| Capacitor, 0.22 μ F, 35V | CB1V224M2ACB |
| Capacitor, 0.33 μ F, 35V | CB1V334M2ACB |
| Capacitor, 0.47 μ F, 35V | CB1V474M2ACB |
| Capacitor, 1 μ F, 35V | CB1V105M2ACB |
| Capacitor, 2.2 μ F, 35V | CB1V225M2BCB |
| Capacitor, 3.3 μ F, 35V | CB1V335M2BCB |
| Capacitor, 4.7 μ F, 35V | CB1V475M2CCB |
| Capacitor, 6.8 μ F, 35V | CB1V685M2DCB |
| Capacitor, 10 μ F, 35V | CB1V106M2DCB |
| Capacitor, 15 μ F, 35V | CB1V156M2ECB |
| Capacitor, 22 μ F, 35V | CB1V226M2ECB |
| Capacitor, 47 μ F, 35V | CB1V476M2FCB |

Important Notice : This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2012.