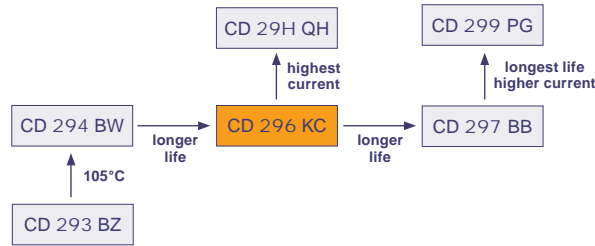


5000 at 105°C

- Long Life at High Temperature
- High Ripple Current
- Professional Power Supplies



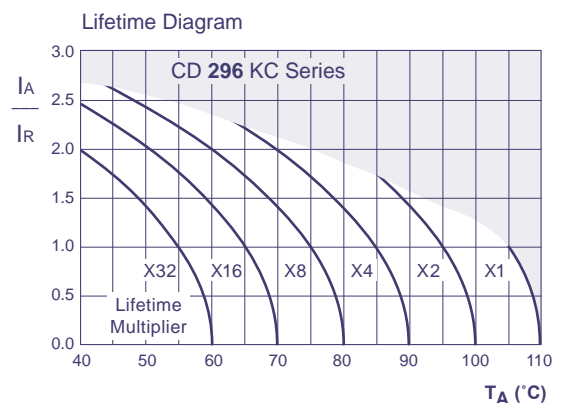
| Item | Characteristics | |
|---|--|--|
| Operating Temperature Range (°C) | -40 ~ +105 | -25 ~ +105 |
| Voltage Range (V) | 16 ~ 100 | 160 ~ 450 |
| Capacitance Range (µF) | 56 ~ 47 000 | |
| Capacitance Tolerance (20°C, 120Hz) | ± 20% | |
| Leakage Current (µA) | After 5 minutes at 20°C application of rated voltage, leakage current is not more than 0,01CV or 1,5mA, whichever is smaller C: Nominal Capacitance (µF) V: Rated Voltage (V) | |
| Dissipation Factor (20°C, 120Hz) | Rated Voltage (V) | 16 25 35 50 63~100 160~400 450 |
| | Tan δ (max) | 0,50 0,40 0,35 0,30 0,20 0,15 0,20 |
| Stability at Low Temperature (Impedance Ratio at 120Hz) | Rated Voltage (V) | 16~100 160~200 250~500 |
| | Z _{-25°C} / Z _{+20°C} | 4 |
| | Z _{-40°C} / Z _{+20°C} | 15 - |

| | Useful Life | | Load Life | Endurance Test | Shelf Life |
|---|--|---|---|---|---|
| Lifetime | 5 000h | >200 000h | 3 000h | 4 000h | 1 000h |
| Leakage Current | Not more than specified value | | Not more than specified value | Not more than specified value | Not more than specified value |
| Capacity Change | Within ± 30% of initial value | | Within ± 20% of initial value | Within ± 20% of initial value | Within ± 20% of initial value |
| Dissipation Factor | Not more than 300% of specified value | | Not more than 200% of specified value | Not more than 130% of specified value | Not more than 200% of specified value |
| Condition: Applied Voltage Applied Current Applied Temperature Failure Rate Level | U _R I _R 105°C ≤ 1% Failure Rate | U _R 1,4 x I _R 40°C ≤ 1% Failure Rate | U _R I _R 105°C guaranteed | U _R I _R = 0 105°C | U _R = 0 I _R = 0 105°C <div style="border: 1px solid black; padding: 2px;">After test: U_R to be applied for 30min >24h before measurement</div> |

Multiplier for Ripple Current

Frequency Coefficient

| Rated Voltage (V) | Frequency | | | | | |
|-------------------|-----------|-------|------|-------|-------|--------|
| | 50Hz | 120Hz | 1kHz | 10kHz | 20kHz | 100kHz |
| ≤ 100 | 0,95 | 1,00 | 1,10 | 1,15 | 1,15 | 1,20 |
| 160 ~ 250 | 0,87 | 1,00 | 1,11 | 1,18 | 1,20 | 1,40 |
| ≥ 350 | 0,80 | 1,00 | 1,14 | 1,14 | 1,20 | 1,60 |



I_A = actual ripple current at 120Hz, I_R = rated ripple current at 120Hz, 105°C
Multiplier of Useful Life as a function of ambient temperature and ripple current load

Ratings for CD 296 KC Series

| V _{DC} (Surge Voltage) Code | Rated Capacitance | Max ESR 20°C, 120Hz | Typ ESR 20°C, 120Hz | Max Ripple Current 105°C, 120Hz | Size Ø D x L |
|--|-------------------|---------------------------|---------------------------|---------------------------------------|--------------------|
| (V) | (µF) | (mΩ) | (mΩ) | (Arms) | (mm) |
| 16 (20) 1C | 6800 | 98 | 69 | 1,60 | 22 x 25 |
| | 8200 | 81 | 57 | 1,80 | 25 x 25 |
| | 10000 | 67 | 47 | 1,99 | 22 x 30 |
| | | 67 | 47 | 1,99 | 25 x 25 |
| | 12000 | 56 | 39 | 2,28 | 22 x 35 |
| | | 56 | 39 | 2,30 | 25 x 30 |
| | | 56 | 39 | 2,38 | 30 x 25 |
| | 15000 | 45 | 31 | 2,64 | 22 x 40 |
| | | 45 | 31 | 2,68 | 25 x 35 |
| | 18000 | 37 | 26 | 2,98 | 22 x 45 |
| | | 37 | 26 | 3,04 | 25 x 40 |
| | | 37 | 26 | 3,00 | 30 x 30 |
| | | 37 | 26 | 3,10 | 35 x 25 |
| | 22000 | 31 | 22 | 3,40 | 25 x 45 |
| | | 31 | 22 | 3,39 | 30 x 35 |
| | 27000 | 25 | 18 | 3,81 | 25 x 50 |
| | | 25 | 18 | 3,83 | 30 x 40 |
| | 33000 | 25 | 18 | 3,74 | 35 x 30 |
| | | 21 | 15 | 4,30 | 30 x 45 |
| | 39000 | 21 | 15 | 4,24 | 35 x 35 |
| 17 | | 12 | 4,74 | 30 x 50 | |
| 47000 | 17 | 12 | 4,72 | 35 x 40 | |
| | 15 | 10 | 5,27 | 35 x 45 | |
| 25 (32) 1E | 4700 | 113 | 80 | 1,55 | 22 x 25 |
| | 5600 | 95 | 67 | 1,70 | 25 x 25 |
| | 6800 | 79 | 55 | 1,91 | 22 x 30 |
| | | 79 | 55 | 1,91 | 25 x 25 |
| | 8200 | 65 | 46 | 2,14 | 22 x 35 |
| | | 65 | 46 | 2,16 | 25 x 30 |
| | 10000 | 65 | 46 | 2,25 | 30 x 25 |
| | | 54 | 38 | 2,40 | 22 x 40 |
| | 12000 | 54 | 38 | 2,44 | 25 x 35 |
| | | 45 | 31 | 2,69 | 22 x 45 |
| | | 45 | 31 | 2,74 | 25 x 40 |
| | 15000 | 45 | 31 | 2,70 | 30 x 30 |
| | | 45 | 31 | 2,80 | 35 x 25 |
| | | 36 | 25 | 3,15 | 25 x 45 |
| | 18000 | 36 | 25 | 3,13 | 30 x 35 |
| | | 36 | 25 | 3,22 | 35 x 30 |
| | 22000 | 30 | 21 | 3,54 | 25 x 50 |
| | | 30 | 21 | 3,54 | 30 x 40 |
| | 27000 | 25 | 17 | 4,24 | 30 x 45 |
| | | 25 | 17 | 3,96 | 35 x 35 |
| 33000 | 20 | 14 | 4,75 | 35 x 45 | |
| | 20 | 14 | 4,75 | 35 x 45 | |
| 39000 | 17 | 12 | 5,39 | 35 x 50 | |
| | 17 | 12 | 5,39 | 35 x 50 | |
| 35 (44) 1V | 3300 | 141 | 99 | 1,43 | 22 x 25 |
| | 3900 | 120 | 84 | 1,65 | 22 x 30 |
| | 4700 | 99 | 70 | 1,78 | 25 x 25 |
| | 5600 | 83 | 59 | 2,02 | 22 x 35 |
| | | 83 | 59 | 2,04 | 25 x 30 |
| | 6800 | 83 | 59 | 2,12 | 30 x 25 |
| | | 69 | 48 | 2,28 | 22 x 40 |
| | 8200 | 69 | 48 | 2,31 | 25 x 35 |
| | | 57 | 40 | 2,67 | 22 x 50 |
| | 10000 | 57 | 40 | 2,60 | 25 x 40 |
| | | 57 | 40 | 2,56 | 30 x 30 |
| | | 57 | 40 | 2,78 | 35 x 25 |
| | 12000 | 47 | 33 | 2,92 | 25 x 45 |
| | | 47 | 33 | 2,92 | 30 x 35 |
| | 15000 | 39 | 28 | 3,26 | 25 x 50 |
| | | 39 | 28 | 3,28 | 30 x 40 |
| | 18000 | 39 | 28 | 3,20 | 35 x 30 |
| | | 31 | 22 | 3,74 | 30 x 45 |
| | 22000 | 31 | 22 | 3,69 | 35 x 35 |
| | | 26 | 19 | 4,16 | 35 x 40 |
| 50 (63) 1H | 1800 | 222 | 155 | 1,31 | 22 x 25 |
| | 2200 | 181 | 127 | 1,45 | 22 x 25 |
| | 2700 | 148 | 104 | 1,70 | 22 x 30 |
| | | 148 | 104 | 1,70 | 25 x 25 |
| | 3300 | 121 | 85 | 1,98 | 22 x 35 |
| | | 121 | 85 | 2,00 | 25 x 30 |
| | 3900 | 103 | 72 | 2,25 | 22 x 40 |
| | | 103 | 72 | 2,28 | 25 x 35 |
| | 4700 | 103 | 72 | 2,22 | 30 x 25 |
| | | 85 | 60 | 2,56 | 22 x 45 |
| | 5600 | 85 | 60 | 2,58 | 30 x 30 |
| | | 85 | 60 | 2,67 | 35 x 25 |
| | 6800 | 72 | 50 | 2,89 | 22 x 50 |
| | | 72 | 50 | 2,81 | 25 x 40 |
| | 8200 | 72 | 50 | 2,95 | 30 x 35 |
| | | 59 | 41 | 3,37 | 25 x 50 |
| | 9800 | 59 | 41 | 3,39 | 30 x 40 |
| | | 59 | 41 | 3,31 | 35 x 30 |

| V _{DC} (Surge Voltage) Code | Rated Capacitance | Max ESR 20°C, 120Hz | Typ ESR 20°C, 120Hz | Max Ripple Current 105°C, 120Hz | Size Ø D x L | |
|--|---------------------------|---------------------------|---------------------------|---------------------------------------|--------------------|---------|
| (V) | (µF) | (mΩ) | (mΩ) | (Arms) | (mm) | |
| 50 (63) 1H | 8200 | 49 | 34 | 3,71 | 30 x 45 | |
| | | 49 | 34 | 3,66 | 35 x 35 | |
| | 10000 | 40 | 28 | 4,09 | 30 x 50 | |
| | | 40 | 28 | 4,07 | 35 x 40 | |
| | | 34 | 24 | 4,50 | 35 x 45 | |
| | 63 (79) 1J | 1200 | 222 | 155 | 1,25 | 22 x 25 |
| | | 1500 | 177 | 124 | 1,25 | 22 x 25 |
| | | 1800 | 148 | 104 | 1,52 | 22 x 30 |
| | | | 148 | 104 | 1,52 | 25 x 25 |
| | | 2200 | 121 | 85 | 1,73 | 22 x 35 |
| | | | 121 | 85 | 1,75 | 25 x 30 |
| | | | 99 | 69 | 1,97 | 22 x 40 |
| 2700 | | 99 | 69 | 1,99 | 25 x 35 | |
| | | 99 | 69 | 1,93 | 30 x 25 | |
| | | 81 | 57 | 2,32 | 22 x 50 | |
| 3300 | | 81 | 57 | 2,27 | 25 x 40 | |
| | | 81 | 57 | 2,24 | 30 x 30 | |
| | 81 | 57 | 2,41 | 35 x 25 | | |
| | 69 | 48 | 2,54 | 25 x 45 | | |
| 3900 | 69 | 48 | 2,55 | 30 x 35 | | |
| | 57 | 40 | 2,88 | 25 x 50 | | |
| 4700 | 57 | 40 | 2,90 | 30 x 40 | | |
| | 57 | 40 | 2,83 | 35 x 30 | | |
| | 48 | 34 | 3,28 | 30 x 45 | | |
| 5600 | 48 | 34 | 3,24 | 35 x 35 | | |
| | 40 | 28 | 3,73 | 30 x 50 | | |
| 6800 | 40 | 28 | 3,71 | 35 x 40 | | |
| | 33 | 23 | 4,16 | 35 x 45 | | |
| 8200 | 27 | 19 | 4,69 | 35 x 50 | | |
| | 820 | 324 | 227 | 1,11 | 22 x 25 | |
| 80 (100) 1K | 1000 | 266 | 186 | 1,20 | 22 x 30 | |
| | 1200 | 222 | 155 | 1,39 | 22 x 30 | |
| | 1500 | 222 | 155 | 1,39 | 25 x 25 | |
| | | 177 | 124 | 1,61 | 22 x 35 | |
| | 1800 | 177 | 124 | 1,62 | 25 x 30 | |
| | | 148 | 104 | 1,83 | 22 x 40 | |
| | 2200 | 148 | 104 | 1,81 | 30 x 25 | |
| | | 121 | 85 | 2,09 | 22 x 45 | |
| | 2700 | 121 | 85 | 2,01 | 25 x 35 | |
| | | 121 | 85 | 2,10 | 30 x 30 | |
| | 3300 | 121 | 85 | 2,17 | 35 x 25 | |
| | | 99 | 69 | 2,43 | 25 x 45 | |
| | 3900 | 99 | 69 | 2,43 | 30 x 35 | |
| | | 81 | 57 | 2,76 | 25 x 50 | |
| | 4700 | 81 | 57 | 2,78 | 30 x 40 | |
| | | 81 | 57 | 2,71 | 35 x 30 | |
| | 5600 | 69 | 48 | 3,12 | 30 x 45 | |
| | | 69 | 48 | 3,07 | 35 x 35 | |
| | 6800 | 57 | 40 | 3,56 | 30 x 50 | |
| | | 57 | 40 | 3,50 | 35 x 40 | |
| 8200 | 48 | 34 | 3,87 | 35 x 45 | | |
| | 48 | 34 | 3,87 | 35 x 45 | | |
| 100 (125) 2A | 560 | 474 | 332 | 1,07 | 22 x 25 | |
| | 680 | 391 | 274 | 1,20 | 22 x 30 | |
| | 820 | 324 | 227 | 1,35 | 22 x 30 | |
| | | 324 | 227 | 1,35 | 25 x 25 | |
| | 1000 | 266 | 186 | 1,54 | 22 x 35 | |
| | | 266 | 186 | 1,56 | 25 x 30 | |
| | 1200 | 222 | 155 | 1,74 | 22 x 40 | |
| | | 222 | 155 | 1,76 | 25 x 35 | |
| | 1500 | 222 | 155 | 1,71 | 30 x 25 | |
| | | 177 | 124 | 1,99 | 22 x 45 | |
| | 1800 | 177 | 124 | 2,03 | 25 x 40 | |
| | | 177 | 124 | 2,00 | 30 x 30 | |
| | 2200 | 177 | 124 | 2,07 | 35 x 25 | |
| | | 148 | 104 | 2,28 | 25 x 45 | |
| | 2700 | 148 | 104 | 2,27 | 30 x 35 | |
| | | 121 | 85 | 2,57 | 25 x 50 | |
| | 3300 | 121 | 85 | 2,59 | 30 x 40 | |
| | | 121 | 85 | 2,52 | 35 x 30 | |
| | 3900 | 99 | 69 | 2,94 | 30 x 45 | |
| | | 99 | 69 | 2,90 | 35 x 35 | |
| 4700 | 81 | 57 | 3,32 | 30 x 50 | | |
| | 81 | 57 | 3,31 | 35 x 40 | | |
| 5600 | 68 | 48 | 3,69 | 35 x 45 | | |
| | 57 | 40 | 4,14 | 35 x 50 | | |
| 6800 | 330 | 603 | 423 | 1,16 | 22 x 25 | |
| | 390 | 511 | 358 | 1,43 | 22 x 30 | |
| 8200 | 424 | 297 | 1,52 | 22 x 35 | | |
| | 424 | 297 | 1,55 | 25 x 25 | | |
| 9800 | 356 | 249 | 1,62 | 22 x 40 | | |
| | 356 | 249 | 1,73 | 25 x 30 | | |

Snap-In

Custom products are available on request.

Ratings for CD 296 KC Series

| V _{DC} (Surge Voltage) Code | Rated Capacitance | Max ESR 20°C, 120Hz | Typ ESR 20°C, 120Hz | Max Ripple Current 105°C, 120Hz | Size Ø D x L | |
|--|-----------------------------|---------------------------|---------------------------|---------------------------------------|--------------------|---------|
| (V) | (µF) | (mΩ) | (mΩ) | (Arms) | (mm) | |
| 160 (200) 2C | 680 | 293 | 205 | 1,70 | 22 x 45 | |
| | | 293 | 205 | 1,81 | 25 x 35 | |
| | | 293 | 205 | 1,82 | 30 x 25 | |
| | 820 | 243 | 170 | 1,81 | 22 x 50 | |
| | | 243 | 170 | 1,98 | 25 x 40 | |
| | | 243 | 170 | 1,98 | 30 x 30 | |
| | | 243 | 170 | 1,93 | 35 x 25 | |
| | | 199 | 140 | 2,04 | 25 x 45 | |
| | 1000 | 199 | 140 | 2,14 | 30 x 35 | |
| | | 166 | 117 | 2,12 | 25 x 50 | |
| | | 166 | 117 | 2,22 | 30 x 40 | |
| | 1200 | 166 | 117 | 2,40 | 35 x 30 | |
| | | 133 | 93 | 2,46 | 30 x 45 | |
| | | 133 | 93 | 2,53 | 35 x 35 | |
| | 1800 | 111 | 78 | 2,98 | 35 x 45 | |
| | 2200 | 91 | 64 | 3,10 | 35 x 50 | |
| | 180 (225) 2K | 270 | 737 | 516 | 1,08 | 22 x 25 |
| | | 330 | 603 | 423 | 1,30 | 22 x 30 |
| 390 | | 511 | 358 | 1,35 | 25 x 25 | |
| 470 | | 424 | 297 | 1,50 | 22 x 35 | |
| | | 424 | 297 | 1,62 | 25 x 30 | |
| 560 | | 356 | 249 | 1,62 | 22 x 40 | |
| | | 356 | 249 | 1,69 | 25 x 35 | |
| | | 356 | 249 | 1,67 | 30 x 25 | |
| 680 | | 293 | 205 | 1,76 | 22 x 50 | |
| | | 293 | 205 | 1,72 | 25 x 40 | |
| | | 293 | 205 | 1,74 | 30 x 30 | |
| | | 293 | 205 | 1,92 | 35 x 25 | |
| | | 243 | 170 | 1,78 | 25 x 45 | |
| | | 243 | 170 | 1,85 | 30 x 35 | |
| 820 | | 199 | 140 | 1,91 | 25 x 50 | |
| | | 199 | 140 | 2,01 | 30 x 40 | |
| | | 199 | 140 | 2,16 | 35 x 30 | |
| 1200 | | 166 | 117 | 2,19 | 30 x 45 | |
| | | 166 | 117 | 2,34 | 35 x 35 | |
| | | 133 | 93 | 2,36 | 30 x 50 | |
| 1500 | | 133 | 93 | 2,56 | 35 x 40 | |
| | | 111 | 78 | 2,67 | 35 x 45 | |
| | | 220 | 905 | 634 | 1,08 | 22 x 25 |
| 200 (250) 2D | | 330 | 603 | 423 | 1,30 | 22 x 30 |
| | 390 | 511 | 358 | 1,41 | 22 x 35 | |
| | 470 | 424 | 297 | 1,50 | 22 x 40 | |
| | | 424 | 297 | 1,47 | 25 x 30 | |
| | | 424 | 297 | 1,56 | 30 x 25 | |
| | 560 | 356 | 249 | 1,58 | 22 x 45 | |
| | | 356 | 249 | 1,65 | 25 x 35 | |
| | | 293 | 205 | 1,68 | 22 x 50 | |
| | 680 | 293 | 205 | 1,80 | 25 x 40 | |
| | | 293 | 205 | 1,82 | 30 x 30 | |
| | | 293 | 205 | 1,96 | 35 x 25 | |
| | 820 | 243 | 170 | 1,87 | 25 x 50 | |
| | | 243 | 170 | 1,99 | 30 x 35 | |
| | | 243 | 170 | 2,07 | 35 x 30 | |
| | 1000 | 199 | 140 | 2,17 | 30 x 45 | |
| | | 199 | 140 | 2,22 | 35 x 35 | |
| | | 166 | 117 | 2,22 | 30 x 50 | |
| | 1200 | 166 | 117 | 2,42 | 35 x 40 | |
| | | 1500 | 133 | 93 | 2,59 | 35 x 45 |
| | | 1800 | 111 | 78 | 2,70 | 35 x 50 |
| | 250 (300) 2E | 180 | 1106 | 774 | 0,94 | 22 x 25 |
| | | 220 | 905 | 634 | 1,10 | 22 x 30 |
| | | | 905 | 634 | 1,15 | 25 x 25 |
| | | 270 | 737 | 516 | 1,13 | 22 x 35 |
| 330 | | 603 | 423 | 1,20 | 22 x 40 | |
| | | 603 | 423 | 1,30 | 25 x 30 | |
| | | 603 | 423 | 1,30 | 30 x 25 | |
| 390 | | 511 | 358 | 1,26 | 22 x 45 | |
| | | 511 | 358 | 1,41 | 25 x 35 | |
| 470 | | 424 | 297 | 1,37 | 22 x 50 | |
| | | 424 | 297 | 1,52 | 25 x 40 | |
| | | 424 | 297 | 1,36 | 30 x 30 | |
| | | 424 | 297 | 1,40 | 35 x 25 | |
| 560 | | 356 | 249 | 1,59 | 25 x 45 | |
| | | 356 | 249 | 1,57 | 30 x 35 | |
| | | 356 | 249 | 1,56 | 35 x 30 | |
| 680 | | 293 | 205 | 1,66 | 25 x 50 | |
| | | 293 | 205 | 1,76 | 30 x 40 | |
| 820 | | 243 | 170 | 1,83 | 30 x 45 | |
| | | 243 | 170 | 1,82 | 35 x 35 | |
| 1000 | | 199 | 140 | 1,87 | 30 x 50 | |
| | | 199 | 140 | 1,99 | 35 x 40 | |
| 1200 | | 166 | 117 | 2,10 | 35 x 45 | |

| V _{DC} (Surge Voltage) Code | Rated Capacitance | Max ESR 20°C, 120Hz | Typ ESR 20°C, 120Hz | Max Ripple Current 105°C, 120Hz | Size Ø D x L | |
|--|-----------------------------|---------------------------|---------------------------|---------------------------------------|--------------------|---------|
| (V) | (µF) | (mΩ) | (mΩ) | (Arms) | (mm) | |
| 350 (400) 2V | 68 | 2926 | 1610 | 0,56 | 22 x 25 | |
| | 100 | 1990 | 1095 | 0,70 | 22 x 30 | |
| | | 1990 | 1095 | 0,70 | 25 x 25 | |
| | 120 | 1658 | 912 | 0,73 | 22 x 35 | |
| | | 1327 | 730 | 0,79 | 22 x 40 | |
| | 150 | 1327 | 730 | 0,82 | 25 x 30 | |
| | | 1327 | 730 | 0,82 | 30 x 25 | |
| | | 1106 | 608 | 0,81 | 22 x 45 | |
| | 180 | 1106 | 608 | 0,89 | 25 x 35 | |
| | | 1106 | 608 | 0,90 | 30 x 30 | |
| | | 905 | 498 | 0,93 | 22 x 50 | |
| | 220 | 905 | 498 | 0,97 | 25 x 40 | |
| | | 905 | 498 | 0,98 | 35 x 25 | |
| | | 737 | 406 | 1,01 | 25 x 50 | |
| | 270 | 737 | 406 | 1,05 | 30 x 35 | |
| | | 737 | 406 | 1,01 | 35 x 30 | |
| | | 603 | 332 | 1,16 | 30 x 45 | |
| | 330 | 603 | 332 | 1,16 | 35 x 35 | |
| | | 511 | 281 | 1,26 | 30 x 50 | |
| | 390 | 511 | 281 | 1,26 | 35 x 40 | |
| | | 424 | 233 | 1,35 | 35 x 45 | |
| | 560 | 356 | 196 | 1,51 | 35 x 50 | |
| | 400 (450) 2G | 68 | 2926 | 1522 | 0,47 | 22 x 25 |
| | | 82 | 2427 | 1262 | 0,56 | 22 x 30 |
| 2427 | | | 1262 | 0,65 | 25 x 25 | |
| 100 | | 1990 | 1035 | 0,60 | 25 x 25 | |
| | | 1658 | 863 | 0,64 | 22 x 35 | |
| 120 | | 1658 | 863 | 0,70 | 25 x 30 | |
| | | 1658 | 863 | 0,78 | 30 x 25 | |
| 150 | | 1327 | 690 | 0,70 | 22 x 40 | |
| | | 1327 | 690 | 0,73 | 25 x 35 | |
| 180 | | 1106 | 575 | 0,78 | 22 x 50 | |
| | | 1106 | 575 | 0,82 | 25 x 40 | |
| | | 1106 | 575 | 0,83 | 30 x 30 | |
| 220 | | 1106 | 575 | 0,86 | 35 x 25 | |
| | | 905 | 471 | 0,87 | 25 x 45 | |
| | | 905 | 471 | 0,86 | 30 x 35 | |
| 270 | | 737 | 384 | 0,94 | 25 x 50 | |
| | | 737 | 384 | 0,91 | 35 x 30 | |
| | | 603 | 314 | 1,11 | 30 x 45 | |
| 330 | | 603 | 314 | 1,13 | 35 x 35 | |
| | | 511 | 266 | 1,15 | 30 x 50 | |
| 390 | | 511 | 266 | 1,26 | 35 x 40 | |
| | | 424 | 221 | 1,31 | 35 x 45 | |
| 560 | | 356 | 185 | 1,50 | 35 x 50 | |
| 450 (500) 2W | | 56 | 4737 | 2369 | 0,47 | 22 x 25 |
| | 68 | 3901 | 1951 | 0,56 | 22 x 30 | |
| | | 3901 | 1951 | 0,65 | 25 x 25 | |
| | 82 | 3235 | 1618 | 0,64 | 22 x 35 | |
| | | 2653 | 1327 | 0,70 | 22 x 40 | |
| | 100 | 2653 | 1327 | 0,70 | 25 x 30 | |
| | | 2653 | 1327 | 0,78 | 30 x 25 | |
| | | 2211 | 1106 | 0,73 | 22 x 45 | |
| | 120 | 2211 | 1106 | 0,73 | 25 x 35 | |
| | | 1769 | 885 | 0,78 | 22 x 50 | |
| | | 1769 | 885 | 0,82 | 25 x 40 | |
| | 150 | 1769 | 885 | 0,83 | 30 x 30 | |
| | | 1769 | 885 | 0,86 | 35 x 25 | |
| | | 1474 | 737 | 0,87 | 25 x 45 | |
| | 180 | 1474 | 737 | 0,86 | 30 x 35 | |
| | | 1206 | 603 | 0,94 | 25 x 50 | |
| | 220 | 1206 | 603 | 0,95 | 30 x 40 | |
| | | 1206 | 603 | 0,91 | 35 x 30 | |
| | | 983 | 492 | 1,11 | 30 x 45 | |
| | 270 | 983 | 492 | 1,13 | 35 x 35 | |
| | | 804 | 402 | 1,15 | 30 x 50 | |
| | 330 | 804 | 402 | 1,26 | 35 x 40 | |
| | | 681 | 341 | 1,31 | 35 x 45 | |
| | 470 | 565 | 283 | 1,50 | 35 x 50 | |

Custom products are available on request.

Snap-In

Order Code SMD, Radial, Snap-In

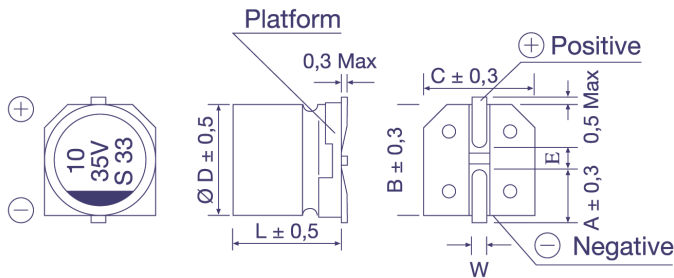
| EC | R | 1C | PT | 101 | M | FF | 25 | 0611 | JE xxxxx |
|-----------------------------|-----------------------|---|--------------|--------------------------------------|-----------------------|---|---------------------|-----------------|-------------------|
| Technology | Terminal Type | Rated Voltage Code | Series Code | Capacitance Code (in μF) | Capacitance Tolerance | Lead Form | Terminal/Pitch Size | Dimension | for Specials only |
| EC = Electrolytic Capacitor | SMD = V Radial = R | For coding please refer to the pages of ratings | CD VS = BS | 0,47 = R47 | $\pm 20\%$ = M | SMD: | | 4x7 = 0407 | |
| | | | CD VH = VH | 1,0 = 010 | $\pm 10\%$ = K | Taped = FF | Terminal = T2 | 5x11,5 = 0511 | |
| PC = Polymer Capacitor | Snap-In = S | | CD VZ = VZ | 2,2 = 2R2 | +30 / -10% = Q | Radial: | | 6,3x11,5 = 0611 | |
| | | | CD 261 = LK | 100 = 101 | +50 / -10% = T | Long Lead = LL | 2,0mm = 20 | 35x80 = 3580 | |
| | | | CD 261X = QX | 1000 = 102 | | Cut 5,0mm = CB | 2,5mm = 25 | 45x100 = 45100 | |
| | | | CD 262 = QM | 10000 = 103 | | Cut 4,5mm = CC | 3,5mm = 35 | | |
| | | | CD 263 = BK | | | Cut 4,0mm = CD | 5,0mm = 50 | | |
| | | | CD 269 = PH | | | Cut 3,5mm = CE | 7,5mm = 75 | | |
| | | | CD 281 = LL | | | Cut 3,0mm = CF | 10,0mm = 10 | | |
| | | | CD 284 = XY | | | on request: alternative lead forms (axial, 90° - angle, others) | | 12,5mm = 12 | |
| | | | CD 287 = GC | | | | | | |
| | | | CD 28L = QL | | | | | | |
| | | | CD 293 = BZ | | | | | | |
| | | | CD 294 = BW | | | | | | |
| | | | CD 295 = BC | | | | | | |
| | | | CD 296 = KC | | | | | | |
| | | | CD 297 = BB | | | | | | |
| | | | CD 299 = PG | | | | | | |
| | | | CD 29D = HR | | | | | | |
| | | | CD 29H = QH | | | | | | |
| | | | CD 29L = QL | | | | | | |
| | | | HCP = CP | | | | | | |
| | | | HPM = PM | | | | | | |
| | | | HVC = VC | | | | | | |

| Snap-In: | |
|-----------------------|------------|
| 4,0mm Pin Length = T4 | 2 Pin = P2 |
| 6,3mm Pin Length = T6 | 3 Pin = P3 |
| Soldering Pin = S4 | 4 Pin = P4 |
| | 5 Pin = P5 |

preferred

Technical Specification SMD Type

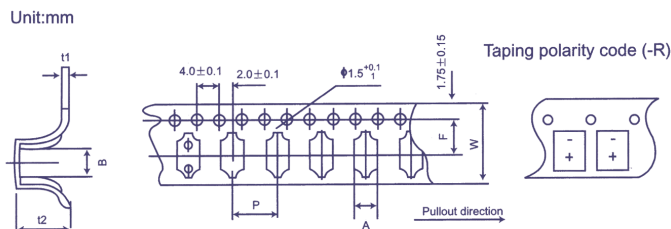
Dimensions



| Ø D x L | 4x5,4 | 5x5,4 | 6,3x5,4 | 6,3x7,7 | 8x10,5 | 8x11,8 | 10x10,5 | 10x12,7 |
|---------|-----------|-------|---------|---------|-----------|--------|---------|---------|
| A | 1,8 | 2,1 | 2,4 | 2,5 | 2,9 | 2,9 | 3,2 | 3,2 |
| B | 4,3 | 5,3 | 6,6 | 6,6 | 8,3 | 8,4 | 10,3 | 10,4 |
| C | 4,3 | 5,3 | 6,6 | 6,6 | 8,3 | 8,4 | 10,3 | 10,4 |
| E | 1,0 | 1,3 | 2,2 | 2,2 | 3,1 | 3,1 | 4,5 | 4,5 |
| L | 5,4 | 5,4 | 5,4 | 7,7 | 10,5 | 11,8 | 10,5 | 12,7 |
| W | 0,5 - 0,8 | | | | 0,7 - 1,1 | | | |

in mm

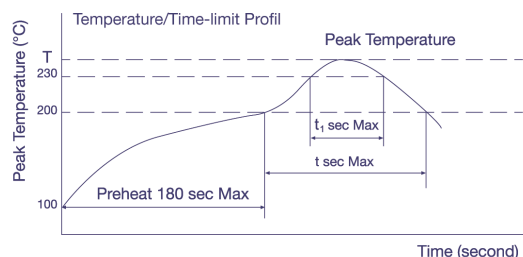
Taping Dimensions



| Size (DxL) | w ± 0,3 | A ± 0,2 | B ± 0,2 | P ± 0,1 | t2 ± 0,2 | F ± 0,1 | t1 ± 0,1 |
|------------|---------|---------|---------|---------|----------|---------|----------|
| 4 x 5,4 | 12,0 | 5,0 | 5,0 | 8,0 | 5,8 | 5,5 | 0,4 |
| 5 x 5,4 | 12,0 | 6,0 | 6,0 | 12,0 | 5,8 | 5,5 | 0,4 |
| 6,3 x 5,4 | 16,0 | 7,0 | 7,0 | 12,0 | 5,8 | 7,5 | 0,4 |
| 6,3 x 7,7 | 16,0 | 7,0 | 7,0 | 12,0 | 8,4 | 7,5 | 0,4 |
| 8 x 10,5 | 24,0 | 8,7 | 8,7 | 16,0 | 11,0 | 11,5 | 0,5 |
| 8 x 11,8 | 24,0 | 8,7 | 8,7 | 16,0 | 12,3 | 11,5 | 0,5 |
| 10 x 10,5 | 24,0 | 10,7 | 10,7 | 16,0 | 11,0 | 11,5 | 0,5 |
| 10 x 12,7 | 24,0 | 10,7 | 10,7 | 16,0 | 14,0 | 11,5 | 0,5 |

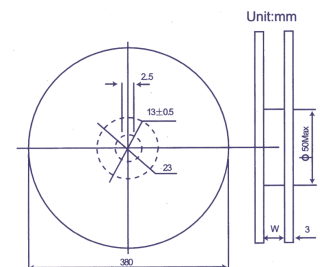
in mm

Soldering Profile (Aluminium Electrolytic Capacitors)



| Diameter | w | D |
|----------|--------|--------|
| 4; 5 | 14 ± 1 | 50 ± 1 |
| 6,3 | 18 ± 1 | 50 ± 1 |
| 8; 10 | 25 ± 1 | 50 ± 1 |
| Polymer | 25 ± 1 | 80 ± 1 |

in mm



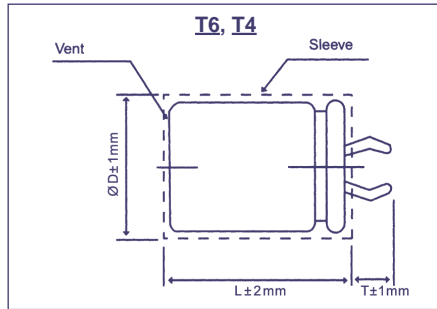
Allowable Range of Peak Temperature

| Size | T (°C) | t (second) | t ₁ (second) |
|-------------|--------|------------|-------------------------|
| Ø 4 ~ 6,3 | 250 | 90 | 40 |
| Ø 8 x 10,5 | 240 | 90 | 30 |
| Ø 10 x 10,5 | 235 | 60 | 30 |

For more details or Soldering Profiles of Radials or Polymer-Capacitors please contact our local Sales Offices.

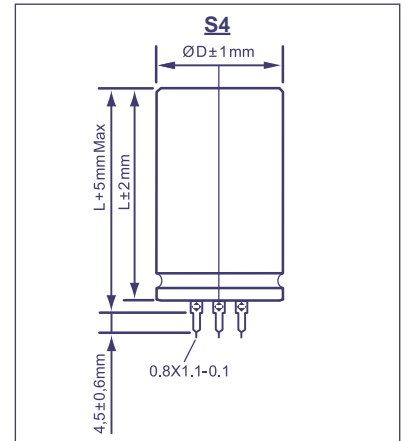
Technical Specification Snap-In Type

Pin Type: Snap-In
Order Code: T6, T4

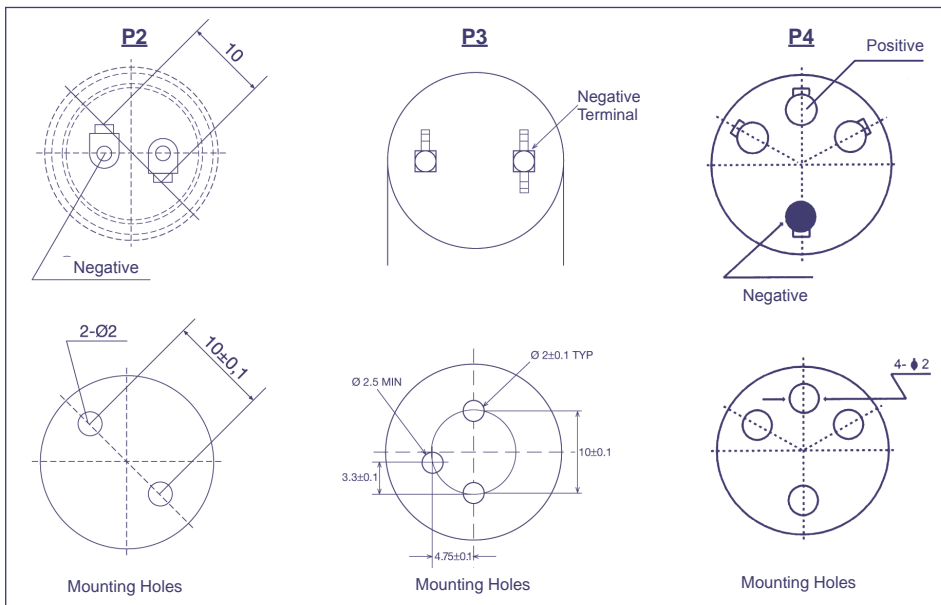


| | | |
|--------------|-----|-----|
| Terminal | T6 | T4 |
| Pin Length T | 6,3 | 4,0 |

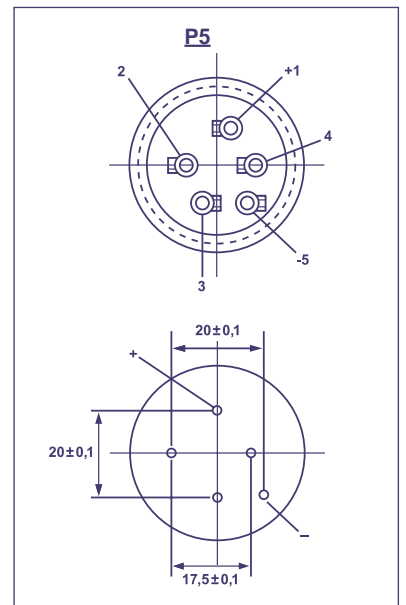
Pin Type: Soldering
Order Code: S4



Snap-In Terminal
Order Code: P2, P3, P4



Soldering Terminal
Order Code: P5



P3 only T4 Terminal

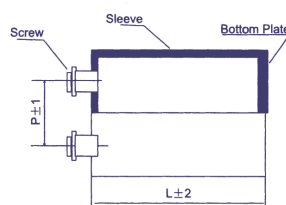
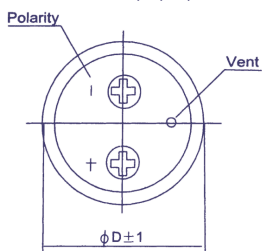
Order Code Screw Type

| EC | G | 1C | BP | 101 | M | B | E | 160 | A361 | JExxxxx |
|-----------------------------|---------------|---|-------------|------------------|--|---------------------------------------|----------|-----------|------------------------------------|-------------------|
| Technology | Terminal Type | Rated Voltage Code | Series Code | Capacitance Code | Capacitance Tolerance | Mounting | Diameter | Length | For Terminal Code see tables below | for Specials only |
| EC = Electrolytic Capacitor | Screw = G | For coding please refer to the pages of ratings | CD 135 = BP | 100 = 101 | ±20% = M | Bolt = B | 36 = A | 53 = 053 | | |
| | | | CD 136 = PK | 1000 = 102 | ±10% = K | No double sleeve = N | 40 = B | 65 = 065 | | |
| | | | CD 137 = PX | 10000 = 103 | +30 / -10% = Q | 2 stoppers bracket+double sleeve* = I | 51 = C | 96 = 096 | | |
| | | | CD 138 = PC | | +20 / -0% = R | 3 stoppers bracket+double sleeve* = Y | 64 = D | 100 = 100 | | |
| | | | CD 139 = BL | | +50 / -10% = T | No bracket, but double sleeve* = D | 77 = E | 115 = 115 | | |
| | | | | preferred | * Double sleeve for diameter ≥ 51 only | | 90 = F | 236 = 236 | | |
| | | | | | | | 101 = G | | | |

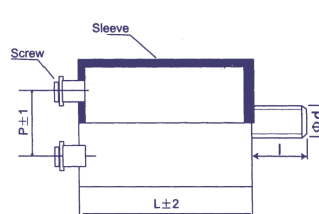
Technical Specification Screw Type

Dimensions

Standard Housing
Order Code: I, Y, D, N



Bolt Housing
Order Code: B



| Ø D | Ø d | l |
|--------|-----|----|
| Ø 36 | M8 | 12 |
| ≥ Ø 51 | M12 | 16 |

in mm