

Type DTCX Axial Leaded Capacitors

85°C High Performance



Type DTCX is an axial leaded computer grade aluminum electrolytic capacitor. Type DTCX capacitors demonstrate good, reliable performance with a temperature range of -55°C to +105°C. In addition, this capacitor presents the advantage of moderately high CV product, excellent DC leakage and dissipation performance, and high ripple current capability. Supplied with mylar insulated sleeve.

Operating Temperature:

-55°C to +105°C

Voltage Range:

6WVDC to 150WVDC

Capacitance Range:

12µF to 1,800µF

Capacitance Tolerance:

6 to 75WVDC -10% to +75%
 >75WVDC -10% to +50%

DC Leakage Current (5 mins):

$$I = 2\sqrt{CV}$$

Not to exceed 2mA @ 25°C

C = Capacitance in µF

V = Rated Voltage

I = Leakage Current in µA

Ripple:

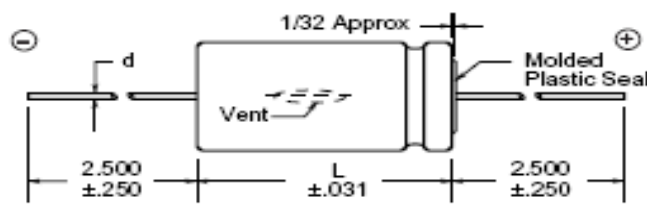
The maximum ripple current at 85°C and 120Hz for DTCX capacitors is shown in the Standard Rating Table. Maximum Ripple current may be adjusted by the multipliers in the following tables:

QA Stability Test:

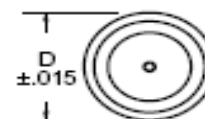
- Apply WVDC for 2,000 hours at 105°C
- Capacitance change ≤15% from initial limits
- DC leakage current meets initial limits
- ESR ≤150% of initial measured value

| Rated WVDC | Ripple Multipliers | | | |
|------------|--------------------|-------|--------|--------|
| | 60Hz | 120Hz | 1000Hz | 2000Hz |
| 6 to 150 | 0.80 | 1.05 | 1.10 | 1.14 |

| Ambient Temp. | Ripple Multipliers |
|---------------|--------------------|
| +95 °C | 0.70 |
| +85 °C | 1.00 |
| +65 °C | 1.20 |
| +65 °C | 1.40 |
| +55 °C | 1.50 |
| +45 °C | 1.70 |



(Inches)



Parts are supplied with PVC insulating sleeve. Add 0.010" to diameter and 0.125" max to length to allow for insulation

| Cap (μ F) | Max ESR Ohms 120Hz 25°C | Max Ripple Amps 120Hz 25°C | Size (Inches) | | | Part Description |
|------------------------------|-------------------------------|----------------------------------|---------------|-------------|-------|------------------|
| | | | D Diameter | L Length | d | |
| 10 WVDC; 12 VDC Surge | | | | | | |
| 10000 | 0.024 | 5.952 | 0.875 | 3.125 | 0.040 | DTCX103U010L3C |

| | | | | | | |
|------------------------------|-------|-------|-------|-------|-------|----------------|
| 15 WVDC; 20 VDC Surge | | | | | | |
| 1000 | 0.145 | 1.394 | 0.750 | 1.125 | 0.040 | DTCX102U015J1C |
| 2100 | 0.071 | 2.337 | 0.750 | 1.625 | 0.040 | DTCX212U015J1L |
| 8200 | 0.025 | 5.796 | 1.000 | 2.625 | 0.040 | DTCX822U015N2L |
| 12000 | 0.019 | 7.589 | 1.000 | 3.625 | 0.040 | DTCX123U015N3L |

| | | | | | | |
|------------------------------|-------|-------|-------|-------|-------|----------------|
| 25 WVDC; 30 VDC Surge | | | | | | |
| 1200 | 0.109 | 1.899 | 1.000 | 1.125 | 0.040 | DTCX122U025N1C |
| 1800 | 0.071 | 2.557 | 0.875 | 1.625 | 0.040 | DTCX182U025L1L |
| 2400 | 0.057 | 3.081 | 1.000 | 1.625 | 0.040 | DTCX242U025N1L |
| 3700 | 0.037 | 4.370 | 0.875 | 2.625 | 0.040 | DTCX372U025L2L |
| 7200 | 0.023 | 6.882 | 1.000 | 3.625 | 0.040 | DTCX722U025N3L |

| | | | | | | |
|------------------------------|-------|-------|-------|-------|-------|----------------|
| 30 WVDC; 40 VDC Surge | | | | | | |
| 310 | 0.316 | 0.852 | 0.625 | 1.125 | 0.032 | DTCX311U030G1C |
| 470 | 0.214 | 1.149 | 0.750 | 1.125 | 0.040 | DTCX471U030J1C |
| 1400 | 0.075 | 2.583 | 0.750 | 2.125 | 0.040 | DTCX142U030J2C |
| 2700 | 0.043 | 4.091 | 0.875 | 2.625 | 0.040 | DTCX272U030L2L |
| 3000 | 0.039 | 4.643 | 0.875 | 3.125 | 0.040 | DTCX302U030L3C |

| | | | | | | |
|------------------------------|-------|-------|-------|-------|-------|----------------|
| 40 WVDC; 40 VDC Surge | | | | | | |
| 360 | 0.230 | 1.107 | 0.750 | 1.125 | 0.040 | DTCX361U040J1C |
| 1000 | 0.088 | 2.290 | 0.875 | 1.625 | 0.040 | DTCX102U040L1L |
| 1400 | 0.063 | 3.107 | 0.750 | 2.625 | 0.040 | DTCX142U040J2L |
| 2100 | 0.045 | 3.975 | 0.875 | 2.625 | 0.040 | DTCX212U040L2L |
| 4200 | 0.028 | 6.361 | 1.000 | 3.625 | 0.040 | DTCX422U040N3L |

| | | | | | | |
|------------------------------|-------|-------|-------|-------|-------|----------------|
| 50 WVDC; 65 VDC Surge | | | | | | |
| 250 | 0.306 | 0.947 | 0.625 | 1.375 | 0.032 | DTCX251U050G1G |
| 370 | 0.216 | 1.250 | 0.875 | 1.125 | 0.040 | DTCX371U050L1C |
| 500 | 0.155 | 1.624 | 0.625 | 2.125 | 0.032 | DTCX501U050G2C |
| 710 | 0.118 | 1.989 | 1.000 | 1.375 | 0.040 | DTCX711U050N1G |

| Cap (μ F) | Max ESR Ohms 120Hz 25°C | Max Ripple Amps 120Hz 25°C | Size (Inches) | | | Part Description |
|-------------------|-------------------------------|----------------------------------|---------------|-------------|-------|------------------|
| | | | D Diameter | L Length | d | |
| 950 | 0.089 | 2.456 | 1.000 | 1.625 | 0.040 | DTCX951U050N1L |
| 1400 | 0.061 | 3.436 | 0.875 | 2.625 | 0.040 | DTCX142U050L2L |
| 1900 | 0.047 | 4.170 | 1.000 | 2.625 | 0.040 | DTCX192U050N2L |
| 2800 | 0.035 | 5.655 | 1.000 | 3.625 | 0.040 | DTCX282U050N3L |

| 75 WVDC; 95 VDC Surge | | | | | | |
|------------------------------|-------|-------|-------|-------|-------|----------------|
| 65 | 2.961 | 0.419 | 0.625 | 1.125 | 0.032 | DTCX650U075G1C |
| 100 | 1.932 | 0.574 | 0.750 | 1.125 | 0.040 | DTCX101U075J1C |
| 560 | 0.115 | 2.491 | 0.875 | 2.625 | 0.040 | DTCX561U075L2L |
| 740 | 0.090 | 3.033 | 1.000 | 2.625 | 0.040 | DTCX741U075N2L |
| 1100 | 0.084 | 3.633 | 1.000 | 3.625 | 0.040 | DTCX112U075N3L |

| 100 WVDC; 125 VDC Surge | | | | | | |
|--------------------------------|-------|-------|-------|-------|-------|----------------|
| 110 | 0.404 | 0.996 | 0.875 | 1.375 | 0.040 | DTCX111T100L1G |
| 150 | 0.297 | 1.248 | 0.875 | 1.625 | 0.040 | DTCX151T100L1L |

| 150 WVDC; 175 VDC Surge | | | | | | |
|--------------------------------|-------|-------|-------|-------|-------|----------------|
| 27 | 5.720 | 0.322 | 0.625 | 1.125 | 0.032 | DTCX270T150G1C |
| 150 | 0.404 | 1.224 | 0.750 | 2.625 | 0.040 | DTCX151T150J2L |