

# Type DTCG Axial Leaded Capacitors

## 85°C Industrial Grade



Type DTCG is an axial leaded computer grade aluminum electrolytic capacitor, a miniature size tubular version of the DuraCap type CG aluminum electrolytic capacitors. PVC insulating sleeve is standard. Mylar sleeve is optional. Long life, low ESR. All welded construction.

**Operating Temperature:**

-40°C to +85°C

**Voltage Range:**

6WVDC to 450WVDC

**Capacitance Range:**

5µF to 10,000µF

**Capacitance Tolerance:**

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

**Ripple:**

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

**DC Leakage Current (5 mins):**

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

Not to exceed 2mA @ 25°C

C = Capacitance in µF

V = Rated Voltage

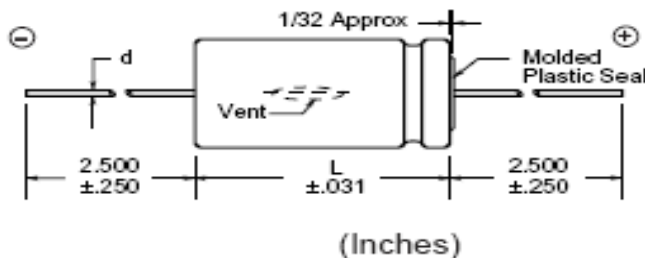
I = Leakage Current in µA

**QA Stability Test:**

- Apply WVDC for 1,000 hours at 85°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
6 to 50	0.80	1.05	1.14
51 to 150	0.80	1.08	1.16
151 to 450	0.80	1.15	1.25

Ambient Temp.	Ripple Multipliers
+75 °C	1.00
+65 °C	1.40
+55 °C	1.58
+45 °C	1.70



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



Capacitance ( $\mu$ F)	Diameter (mm)	Length (mm)	Leadwire Diameter Max ESR (Ohms) @ 25°C, 120Hz	Max Ripple (mA) @ 85°C, 120Hz	Part Description
<b>6 WVDC; 8 VDC Surge</b>					
6000	1.000	1.625	--	--	DTCG602U006N1L
9400	0.866	1.575	0.050	1.800	DTCG942U006L1K
10000	1.000	2.125	--	--	DTCG103U006N2C
12000	1.000	2.625	--	--	DTCG123U006N2L

<b>10 WVDC; 12 VDC Surge</b>					
500	0.438	1.000	--	--	DTCG501U010D1A
1000	0.438	1.375	3.260	0.180	DTCG102U010D1G
1600	0.438	2.000	--	--	DTCG162U010D2A
2500	0.875	1.125	0.170	1.407	DTCG252U010L1C
2500	1.000	1.125	0.171	1.521	DTCG252U010N1C
2700	1.000	1.125	--	--	DTCG272U010N1C
5000	1.000	1.375	0.082	2.488	DTCG502U010N1G
5500	1.000	1.625	0.081	2.584	DTCG552U010N1L
10000	1.000	2.125	0.048	3.772	DTCG103U010N2C
10000	0.875	3.125	0.046	4.274	DTCG103U010L3C

<b>15 WVDC; 20 VDC Surge</b>					
70	0.313	0.625	--	--	DTCG700U015B0L
180	0.375	0.813	--	--	DTCG181U015C0P
600	0.375	1.625	--	--	DTCG601U015C1L
1200	0.438	2.000	--	--	DTCG122U015D2A
2500	0.625	2.625	0.126	1.989	DTCG252U015G2L
2900	0.625	2.625	0.110	2.134	DTCG292U015G2L
4000	1.000	1.625	0.085	2.518	DTCG402U015N1L
4100	1.000	1.625	0.083	2.544	DTCG412U015N1L
6300	0.875	2.625	0.055	3.612	DTCG632U015L2L
8000	1.000	2.625	0.058	1.617	DTCG802U015N2L
8200	1.000	2.625	0.045	4.269	DTCG822U015N2L
10000	1.000	2.625	0.038	4.634	DTCG103U015N2L
10000	0.866	1.575	0.050	1.800	DTCG103U015L1K

<b>25 WVDC; 30 VDC Surge</b>					
120	0.375	0.938	--	--	DTCG121U025C0S
120	0.438	0.600	--	--	DTCG121U025D0N
200	0.438	1.000	--	--	DTCG201U025D1A

Capacitance ( $\mu$ F)	Diameter (mm)	Length (mm)	Leadwire Diameter Max ESR (Ohms) @ 25°C, 120Hz	Max Ripple (mA) @ 85°C, 120Hz	Part Description
230	0.438	1.000	--	--	DTCG231U025D1A
500	0.438	1.750	--	--	DTCG501U025D1N
520	0.438	1.750	--	--	DTCG521U025D1N
1000	1.000	1.125	0.216	1.352	DTCG102U025N1C
1100	0.750	1.625	0.118	1.447	DTCG112U025J1L
1100	0.866	1.575	0.118	1.447	DTCG112U025J1L
2200	0.750	2.625	0.098	2.487	DTCG222U025J2L
2300	0.750	2.625	--	--	DTCG232U025J2L
4000	0.866	1.575	0.595	2.402	DTCG402U025L1K
4000	0.875	3.125	0.057	3.827	DTCG402U025L3C
4100	0.866	1.575	0.595	2.402	DTCG412U025L1K

### 30 WVDC; 40 VDC Surge

25	0.313	0.625	--	--	DTCG250U030B0L
65	0.375	0.813	--	--	DTCG650U030C0P
95	0.375	0.938	--	--	DTCG950U030C0S
150	0.438	1.000	--	--	DTCG151U030D1A
250	0.438	1.375	--	--	DTCG251U030D1G
280	0.438	1.375	--	--	DTCG281U030D1G
500	0.625	1.625	--	--	DTCG501U030G1L
500	0.750	1.125	0.369	0.874	DTCG501U030J1C
1100	0.630	1.200	0.147	1.050	DTCG112U030G1D
1100	0.625	2.625	0.169	1.721	DTCG112U030G2L
2100	0.866	1.575	0.080	1.400	DTCG212U030L1K
2100	0.875	2.625	0.072	3.159	DTCG212U030L2L
2400	0.866	1.575	0.130	1.318	DTCG242U030L1K
2400	0.875	2.625	0.082	2.961	DTCG242U030L2L
2500	1.000	2.625	0.078	3.005	DTCG242U030N2L
3000	0.875	2.125	0.065	3.004	DTCG302U030L2C
1200	0.709	1.575	0.136	1.150	DTCG122U040A
2100	0.866	1.575	0.080	1.400	DTCG212U040L1K

### 50 WVDC; 65 VDC Surge

100	0.394	0.984	1.179	0.350	DTCG101U050A
250	0.512	1.000	0.610	0.477	DTCG251U050A
250	0.625	1.375	0.499	0.742	DTCG251U050G1G
500	0.512	1.200	0.304	0.770	DTCG501U050A
500	0.625	2.625	0.156	1.788	DTCG501U050G2L

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Capacitance ( $\mu$ F)	Diameter (mm)	Length (mm)	Leadwire Diameter Max ESR (Ohms) @ 25°C, 120Hz	Max Ripple (mA) @ 85°C, 120Hz	Part Description
500	1.000	1.125	0.262	1.227	DTCG501U050N1C
600	0.709	1.575	0.243	1.133	DTCG601U050A
600	0.625	2.625	0.211	1.539	DTCG601U050G2L
600	0.875	1.375	0.215	1.363	DTCG601U050L1G
880	0.866	1.575	0.148	1.353	DTCG681U050L1K
1100	1.000	1.375	1.050	2.480	DTCG112U050N1G
1100	0.866	1.575	0.118	1.447	DTCG112U050L1K
1100	1.000	0.125	0.094	2.698	DTCG112U050N2C
1200	0.709	1.575	0.136	1.150	DTCG122U050A
1200	0.875	2.125	0.110	2.313	DTCG122U050L2C
2300	0.866	1.575	0.130	1.318	DTCG232U050L1K
2300	1.000	2.625	0.062	3.653	DTCG232U050N2L
2500	1.000	2.625	0.058	3.777	DTCG252U050N2L

### 75 WVDC; 95 VDC Surge

10	0.313	0.750	--	--	DTCG100U075B0N
25	0.375	0.938	--	--	DTCG250U075C0S
40	0.375	1.125	--	--	DTCG400U075C1C
340	0.630	1.200	0.357	0.700	DTCG341U075A

### 150 WVDC; 175 VDC Surge

100	0.750	1.625	0.696	0.748	DTCG101T150J1L
110	0.750	1.625	0.634	0.784	DTCG111T150J1L
250	0.875	2.125	0.284	1.439	DTCG251T150L2C
530	1.000	3.125	0.139	2.639	DTCG531T150N3C
560	1.000	3.125	0.133	2.705	DTCG561T150N3C

### 200 WVDC; 250 VDC Surge

30	0.512	0.984	7.060	0.240	DTCG300T200A
210	1.000	2.125	0.646	1.780	DTCG211T200N2C
300	1.000	2.125	0.517	1.977	DTCG301T200N2C
430	1.000	3.625	0.411	2.116	DTCG431T200N3L

### 250 WVDC; 300 VDC Surge

20	0.500	2.125	--	--	DTCG200T250E2C
50	0.875	1.375	2.450	0.607	DTCG500T250L1G
100	0.875	2.125	1.230	1.039	DTCG101T250L2C

Capacitance (µF)	Diameter (mm)	Length (mm)	Leadwire Diameter Max ESR (Ohms) @ 25°C, 120Hz	Max Ripple (mA) @ 85°C, 120Hz	Part Description
200	1.000	2.625	0.277	1.726	DTCG201T250N2L
200	1.000	3.125	--	--	DTCG201T250N3C

<b>350 WVDC; 400 VDC Surge</b>					
20	0.625	1.625	15.100	0.175	DTCG200T350G1L
20	0.750	1.125	9.500	0.294	DTCG200T350J1C
20	0.625	2.125	9.520	0.276	DTCG200T350G2C
30	0.512	0.984	7.060	0.240	DTCG300T350A
30	0.625	2.125	6.336	0.408	DTCG300T350G2C
30	0.875	1.125	6.368	0.369	DTCG300T350L1C
40	0.625	2.625	--	--	DTCG400T350G2L
40	1.000	1.125	4.200	0.460	DTCG400T350N1C
50	1.000	1.625	--	--	DTCG500T350N1L
50	1.000	1.375	3.353	0.560	DTCG500T350N1G
100	0.866	1.575	3.320	0.555	DTCG101T350L1K
100	1.000	2.125	1.680	0.957	DTCG101T350N2C
160	1.000	2.625	0.469	1.327	DTCG161T350N2L
180	1.000	3.125	0.417	1.524	DTCG181T350N3C

<b>450 WVDC; 525 VDC Surge</b>					
5	0.500	1.625	--	--	DTCG5R0T450E1L
5	0.500	1.375	--	--	DTCGR50T450E1G
10	0.512	0.827	33.200	0.089	DTCG100T450A
10	0.625	1.625	17.392	0.217	DTCG100T450G1L
10	0.750	1.125	17.404	0.204	DTCG100T450J1C
12	0.750	1.375	14.500	0.244	DTCG120T450J1G
12	0.750	1.125	8.840	0.152	DTCG120T450J1C
20	0.512	1.200	15.100	0.175	DTCG200T450A
20	0.625	2.625	8.704	0.384	DTCG200T450G2L
20	1.000	1.125	8.732	0.341	DTCG200T450N1C
40	0.630	1.299	8.580	0.280	DTCG400M450A
40	0.630	1.299	8.580	0.280	DTCG500T450A
50	0.630	1.299	6.850	0.331	DTCG500M450A
50	0.630	1.299	6.850	0.331	DTCG500T450A
50	1.000	1.625	4.742	0.709	DTCG500T450N1L
50	1.000	2.125	4.049	0.548	DTCG500T450N2C
60	0.709	1.575	6.140	0.376	DTCG600M450A
60	1.000	2.625	3.950	0.890	DTCG600T450N2L

Capacitance ( $\mu$ F)	Diameter (mm)	Length (mm)	Leadwire Diameter Max ESR (Ohms) @ 25°C, 120Hz	Max Ripple (mA) @ 85°C, 120Hz	Part Description
75	0.709	1.575	5.080	0.443	DTCG750T450A
75	1.000	2.125	1.980	0.944	DTCG750T450N2C
85	1.000	2.625	1.869	0.998	DTCG850T450N2L