

Type TCG Axial Leaded Capacitors



Cap μF	Max ESR Ohms 120Hz 25°C	Max Ripple Amps 120Hz 85°C	Size (Inches)			Catalog Number
			D Diameter	L Length	d	
200 WVDC; 250 VDC Surge						
210	.646	1.780	1.000	2.125	.040	TCG211T200N2C
300	.517	1.977	1.000	2.125	.040	TCG301T200N2C
430	.411	2.116	1.000	3.625	.040	TCG431U200N3L
250 WVDC; 300 VDC Surge						
50	2.450	.607	.875	1.375	.040	TCG500T250L1G
100	1.230	1.039	.875	2.125	.040	TCG101T250L2C
200	.277	1.726	1.000	2.625	.040	TCG201T250N2L
350 WVDC; 400 VDC Surge						
20	9.520	.276	.750	1.125	.040	TCG200T350J1C
20	9.500	.294	.625	1.625	.032	TCG200T350G1L
30	6.368	.369	.875	1.125	.040	TCG300T350L1C
30	6.336	.408	.625	2.125	.032	TCG300T350G2C
40	4.200	.460	1.000	1.125	.040	TCG400T350N1C
50	3.353	.560	1.000	1.375	.040	TCG500T350N1G
100	1.680	.957	1.000	2.125	.040	TCG101T350N2C
160	.469	1.327	1.000	2.625	.040	TCG161T350N2L
180	.417	1.524	1.000	3.125	.040	TCG181T350N3C

Cap μF	Max ESR Ohms 120Hz 25°C	Max Ripple Amps 120Hz 85°C	Size (Inches)			Catalog Number
			D Diameter	L Length	d	
450 WVDC; 525 VDC Surge						
10	17.404	.204	.750	1.125	.040	TCG100T450J1C
10	17.392	.217	.625	1.625	.032	TCG100T450G1L
12	14.500	.244	.750	1.375	.040	TCG120T450J1G
20	8.704	.384	.625	2.625	.032	TCG200T450G2L
20	8.732	.341	1.000	1.125	.040	TCG200T450N1C
50	4.742	.709	1.000	1.625	.040	TCG500T450N1L
50	4.049	.548	1.000	2.125	.040	TCG500T450N2C
60	3.950	.890	1.000	2.625	.040	TCG600T450N2L
75	1.980	.944	1.000	2.125	.040	TCG750T450N2C
85	1.869	.998	1.000	2.625	.040	TCG850T450N2L

Datasheet Directory

Case Codes and Part Number Format Types TCG and TCX

Case Code Chart

Case Code	Inches		Millimeters		d	
	D	L	D	L	Inches	AWG
E1G	.500	1.375	12.7	34.9	.032	#20
E2C	.500	2.125	12.7	53.9	.032	#20
G1C	.625	1.125	15.9	28.6	.032	#20
G1G	.625	1.375	15.9	34.9	.032	#20
G1L	.625	1.625	15.9	41.3	.032	#20
G2C	.625	2.125	15.9	53.9	.032	#20
G2L	.625	2.625	15.9	66.7	.032	#20
G3C	.625	3.125	15.9	79.4	.032	#20
G3L	.625	3.625	15.9	92.1	.032	#20
J1C	.750	1.125	19.1	28.6	.040	#18
J1G	.750	1.375	19.1	34.9	.040	#18
J1L	.750	1.625	19.1	41.3	.040	#18
J2C	.750	2.125	19.1	53.9	.040	#18
J2L	.750	2.625	19.1	66.7	.040	#18
J3C	.750	3.125	19.1	79.4	.040	#18
J3L	.750	3.625	19.1	92.1	.040	#18
L1C	.875	1.125	22.2	28.6	.040	#18
L1G	.875	1.375	22.2	34.9	.040	#18
L1L	.875	1.625	22.2	41.3	.040	#18
L2C	.875	2.125	22.2	53.9	.040	#18
L2L	.875	2.625	22.2	66.7	.040	#18
L3C	.875	3.125	22.2	79.4	.040	#18
L3L	.875	3.625	22.2	92.1	.040	#18
N1C	1.000	1.125	25.4	28.6	.040	#18
N1G	1.000	1.375	25.4	34.9	.040	#18
N1L	1.000	1.625	25.4	41.3	.040	#18
N2C	1.000	2.125	25.4	53.9	.040	#18
N2L	1.000	2.625	25.4	66.7	.040	#18
N3C	1.000	3.125	25.4	79.4	.040	#18
N3L	1.000	3.625	25.4	92.1	.040	#18

Part Number Nomenclature

NACC Catalog Number: TCG 252 U 016 G2L
TCX 282 U 050 N3L

TYPE NUMBER: _____
Identifies the basic type

CAPACITANCE: _____
Expressed in microfarads
The first two digits are significant figures
The third digit is the number of zeros

CAPACITANCE TOLERANCE: _____
U = -10%+75%, T = -10%+50%
Other tolerances are available on special request

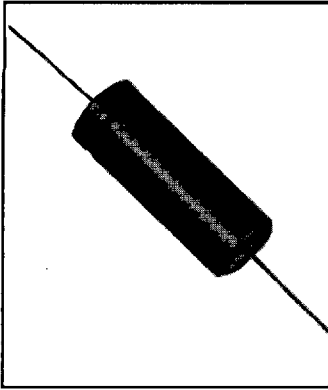
DC VOLTAGE RATING: _____
Zeros are used to precede the voltage rating where
necessary to complete the three digit block.
The letter 'R' indicates a decimal point

CASE CODE: _____
Denotes un-insulated diameter and length

Aluminum Capacitors

Type TCX Axial Leaded Capacitors

MALLORY



- 105°C High Performance
- Computer Grade Quality
- 2000 Hours Load Life at Rated Temperature
- Low DCL, Low ESR
- Axial Leads

GENERAL SPECIFICATIONS

Operating Temperature:
-55°C to +105°C

Voltage Range:
10 WVDC to 150 WVDC

Capacitance Range:
27 μF to 12,000 μF

Capacitance Tolerance:
10 to 75 WVDC - 10% +75%
Over 75 WVDC - 10% +50%

DC Leakage Current:
 $I = 2\sqrt{CV}$ after 5 minutes
Not to exceed 2mA @ 25°C
C = Capacitance in μF
V = Rated Voltage
I = Leakage Current in μA

QA Stability Test:
Apply WVDC for 2,000 hrs at 105°C

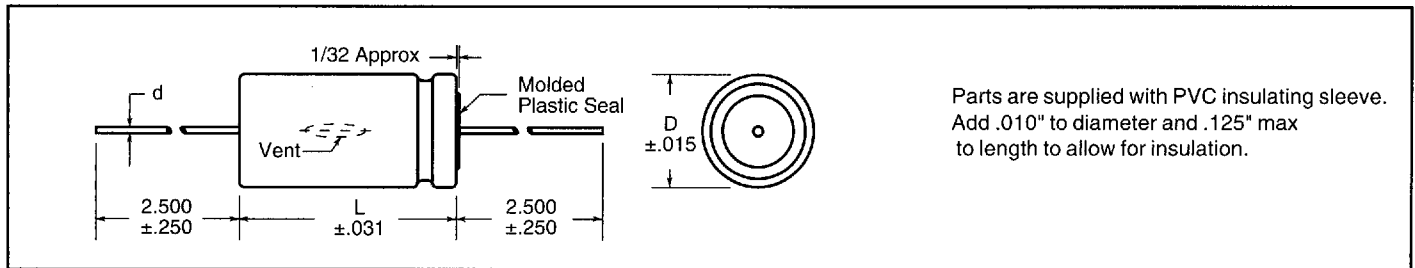
- Capacitance change ±15% from initial limits
- DC leakage current meets initial limits
- ESR ≤ 150% of initial measured value

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

Rated WVDC	Ripple Multipliers			
	60 Hz	400 Hz	1000 Hz	2400 Hz
0 to 150	0.8	1.05	1.10	1.14

Ambient Temperature	Ripple Multiplier
+95°C	0.7
+85°C	1.0
+75°C	1.2
+65°C	1.4
+55°C	1.58
+45°C	1.7

Outline Dimensions



Parts are supplied with PVC insulating sleeve. Add .010" to diameter and .125" max to length to allow for insulation.

Aluminum Capacitors

Cap μF	Max ESR Ohms 120Hz 25°C	Max Ripple Amps 120Hz 85°C	Size (Inches)			Catalog Number
			D Diameter	L Length	d	
10 WVDC; 12 VDC Surge						
10,000	.024	5.952	.875	3.125	.040	TCX103U010L3C
15 WVDC; 20 VDC Surge						
1,000	.145	1.394	.750	1.125	.040	TCX102U015J1C
2,100	.071	2.337	.750	1.625	.040	TCX212U015J1L
8,200	.025	5.796	1.000	2.625	.040	TCX822U015N2L
12,000	.019	7.589	1.000	3.625	.040	TCX123U015N3L
25 WVDC; 30 VDC Surge						
560	.207	1.249	.500	2.125	.032	TCX561U025E2C
1,200	.109	1.899	1.000	1.125	.040	TCX122U025N1C
1,800	.071	2.557	.875	1.625	.040	TCX182U025L1L
2,400	.057	3.081	1.000	1.625	.040	TCX242U025N1L
3,700	.037	4.370	.875	2.625	.040	TCX372U025L2L
7,200	.023	6.882	1.000	3.625	.040	TCX722U025N3L
30 WVDC; 40 VDC Surge						
310	.316	.852	.625	1.125	.032	TCX311U030G1C
470	.214	1.149	.750	1.125	.040	TCX471U030J1C
1,400	.075	2.583	.750	2.125	.040	TCX142U030J2C
2,700	.043	4.091	.875	2.625	.040	TCX272U030L2L
3,000	.039	4.643	.875	3.125	.040	TCX302U030L3C
40 WVDC; 50 VDC Surge						
360	.230	1.107	.750	1.125	.040	TCX361U040J1C
1,000	.088	2.290	.875	1.625	.040	TCX102U040L1L
1,400	.063	3.107	.750	2.625	.040	TCX142U040J2L

Cap μF	Max ESR Ohms 120Hz 25°C	Max Ripple Amps 120Hz 85°C	Size (Inches)			Catalog Number
			D Diameter	L Length	d	
40 WVDC; 50 VDC Surge						
2,100	.045	3.975	.875	2.625	.040	TCX212U040L2L
4,200	.028	6.361	1.000	3.625	.040	TCX422U040N3L
50 WVDC; 65 VDC Surge						
110	.686	.560	.500	1.375	.032	TCX111U050E1G
250	.306	.947	.625	1.375	.032	TCX251U050G1G
370	.216	1.250	.875	1.125	.040	TCX371U050L1C
500	.155	1.624	.625	2.125	.032	TCX501U050G2C
710	.118	1.989	1.000	1.375	.040	TCX711U050N1G
950	.089	2.456	1.000	1.625	.040	TCX951U050N1L
1,400	.061	3.436	.875	2.625	.040	TCX142U050L2L
1,900	.047	4.170	1.000	2.625	.040	TCX192U050N2L
2,800	.035	5.655	1.000	3.625	.040	TCX282U050N3L
75 WVDC; 95 VDC Surge						
65	2.961	.419	.625	1.125	.032	TCX650U075G1C
100	1.932	.574	.750	1.125	.040	TCX101U075J1C
560	.115	2.491	.875	2.625	.040	TCX561U075L2L
740	.090	3.033	1.000	2.625	.040	TCX741U075N2L
1,100	.084	3.633	1.000	3.625	.040	TCX112U075N3L
100 WVDC; 125 VDC Surge						
110	.404	.996	.875	1.375	.040	TCX111T100L1G
150	.297	1.248	.875	1.625	.040	TCX151T100L1L
150 WVDC; 175 VDC Surge						
27	5.720	.322	.625	1.125	.032	TCX270T150G1C
150	.404	1.224	.750	2.625	.040	TCX151T150J2L