BREL INTERNATIONAL COMPONENTS
1621 WEST UNIVERSITY PARKWAY, SARASOTA, FL 34243
SALES: (800) 237-4564 PHONE: (941) 355-9791 FAX: (941) 355-1530

ALUMINUM ELECTROLYTIC CAPACITORS

Series D are suitable for use in circuits whose polarity is reversed or unknown or crossover networks which do not require tough characteristic requirements.

Operating temperature range: -40°C ~ +85°C.

Capacitance and tolerance: Capacitance measurements shall be made by referred to a frequency of $120Hz^{+10}_{-5}Hz$. The capacitance shall be within the specified tolerance of ±20%. (±10% units are available on request).

Leakage current: Measurements shall be made at rated DC voltage with an application of a steady source of power, such as a regulated power supply. A current-limiting resistor of 1,000 ohms shall be connected in series with each capacitor under test. Rated DC working voltage shall be applied to the capacitor for 5 minutes before making the leakage current measurements.

The maximum leakage current shall not exceed the value determined from the following equation or 3μA, whichever is greater:

$I = 0.03CV$

where: I = Leakage Current (μA)
C = Nominal Capacitance (μF)
V = Rated DC Voltage (V. DC)

Dissipation factor: Measured at a frequency of 120 $Hz^{+10}_{-5}Hz$, the dissipation factor shall be less than the values in Table 1.

Table 1.

Rated Voltage (V. DC)	Dissipation Factor (%)
6.3	30
10	25
16	20
25	17
35	17
50	15
63 ~ 100	15

Low-temperature characteristics: The ratio of the impedance of -25°C to that of +20°C shall be less than the values in Table 2.

Table 2.

Rated Voltage (V)	Z @ -25°C / Z @ +20°C	Z @ -40°C / Z @ +20°C
6.3	4	10
10	3	8
16	2	6
25	2	4
35	2	4
50 ~ 100	2	4

Life test: Rated voltage shall be applied to the capacitors in series with a one thousand ohm resistor. All tests shall be conducted in a dry oven with circulating air. Capacitors shall be separated by a distance not less than 2.5CM and air circulation shall be provided to prevent temperature within 15CM of any capacitors from departing more than +0°C -5°C from the norminal ambient temperature of the chamber. Capacitors shall not be exposed to direct radiation from heating elements.

Capacitors shall be subjected to for a period of 1000 hours at 85°C.

After the completion of the life test capacitors shall be returned to standard test conditions.

Table 3.

Leakage current	Same as specified under **Leakage Current**
Capacitance	Within ±20% of initial measurements
Dissipation factor	200% less of value in Table 1
Appearance	Free from leakage of electrolyte and/or other noticeable deformation

Shelf life test: Capacitors shall be subjected to +85°C± 2°C for 1000±12 hours during which time no voltage shall be applied.

Following this period the capacitors shall be cool to room temperature and then D.C. rated voltage shall be applied to the capacitors for 30 minutes after which the capacitors shall be discharged.

After completion of these procedures, the capacitors shall meet the requirements as listed in Table 3.

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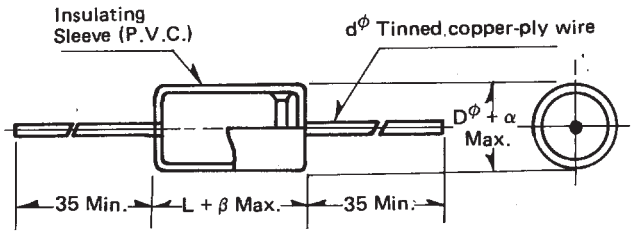
Non-Polar For General Purpose – Axial Type-Series D – Type NDA

● CONFIGURATION



Dimensions: mm

Outside Diameter	D^{ϕ}	6	8	10	13	16
Diameter Tolerance	α	0.5	0.5	0.5	0.5	0.5
Length Tolerance	β	1.0	1.0	1.0	1.0	1.0
Lead Wire	d^{ϕ}	0.6	0.6	0.6	0.6	0.8

DIMENSIONS: Diameter (D^{ϕ}) x Length (L): mm

Rated Voltage (V) / Surge Voltage (V) / CAP. (μF)	6.3	10	16	25	35	50	63	80	100
	8	13	20	32	44	63	79	100	125
0.47	6x19	6x19	6x19	6x19	6x19	6x19	6x19	6x19	6x19
1.0	6x19	6x19	6x19	6x19	6x19	6x19	6x19	6x19	6x19
2.2	6x19	6x19	6x19	6x19	6x19	6x19	6x19	6x19	6x19
3.3	6x19	6x19	6x19	6x19	6x19	6x19	6x19	6x19	6x19
4.7	6x19	6x19	6x19	6x19	6x19	6x19	6x19	6x19	8x19
10	6x19	6x19	6x19	6x19	6x19	6x19	8x19	8x19	10x21
22	6x19	6x19	6x19	6x19	8x19	10x21	10x21	10x25	10x25
33	6x19	6x19	6x19	8x19	8x19	10x21	10x25	10x25	13x30
47	6x19	6x19	8x19	8x19	10x21	10x25	10x25	10x30	13x30
100	6x19	6x19	10x21	10x25	10x30	13x30	13x30	13x30	16x30
220	10x21	10x21	10x25	13x30	13x30	16x30	16x30	16x41	
330	10x21	10x25	10x30	13x30	16x30	16x41	16x41		
470	10x25	10x30	13x30	16x30	16x41				
1000	13x30	13x30	16x30						
2200	16x30	16x41							
3300	16x41								