

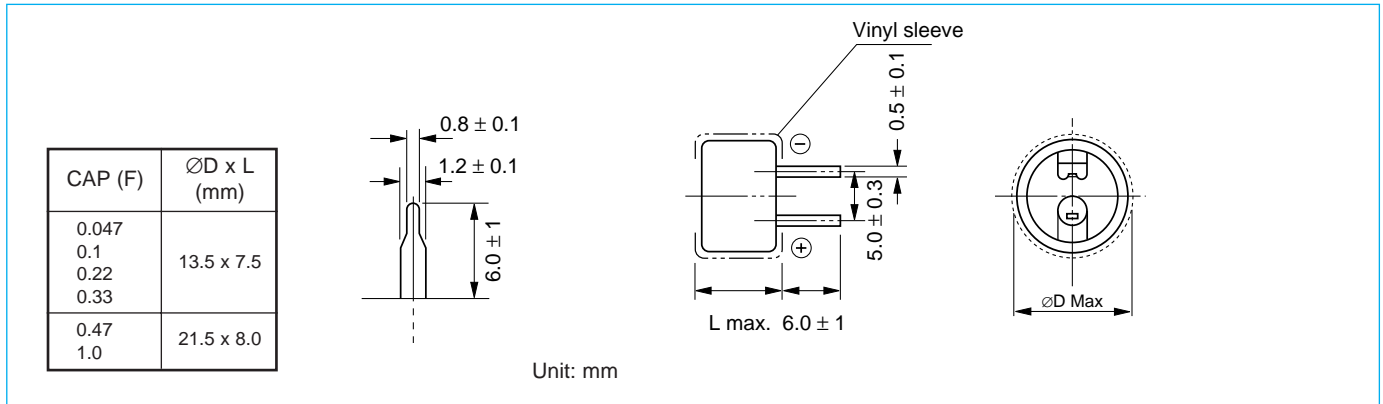
DYNACAP – Double Layer Capacitor

DB Series

Has a total withstand voltage rating of 5.5V. Utilizing ELNA's unique flat spring technology, which enhances the reliability of the internal coin cells, this series is ideal for a wide range of applications from consumer appliances to sophisticated instrumentation.



Construction and Dimensions



Specifications	Performance						
Temperature range (°C)	−25 to +70						
Capacitance tolerance (%)	−20 to +80						
Internal resistance at 1KHz	Capacitance (F)	0.047	0.1	0.22	0.33	0.47	1.0
	Internal resistance (Ω)	120	75	75	75	30	30
Stability at low & high temperature	Change in capacitance	Within ±30% of value at 20°C					
	Internal resistance	Less than five times of the value at 20°C					
Endurance (70°C)	Test time	1000 hrs					
	Change in capacitance	Within ±30% of the initial measured value					
	Internal resistance	Within four times the initial specified value					
Max. storage temp. (70°C)	Test time 1000hrs. Same as Endurance						

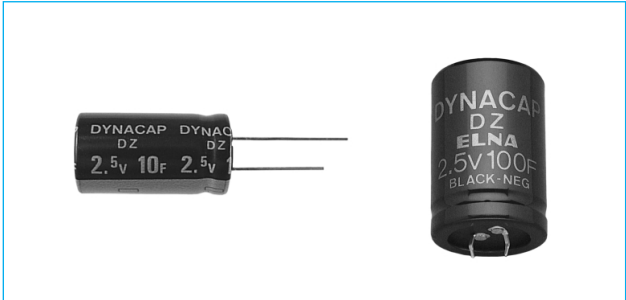
Standard Ratings

ELNA Part No.	Rated Volt (V)	Capacitance (F)	Internal Resistance (Ω)
DB-5R5D473	5.5	0.047	≤120
DB-5R5D104	5.5	0.1	≤75
DB-5R5D224	5.5	0.22	≤75
DB-5R5D334	5.5	0.33	≤75
DB-5R5D474	5.5	0.47	≤30
DB-5R5D105	5.5	1.0	≤30

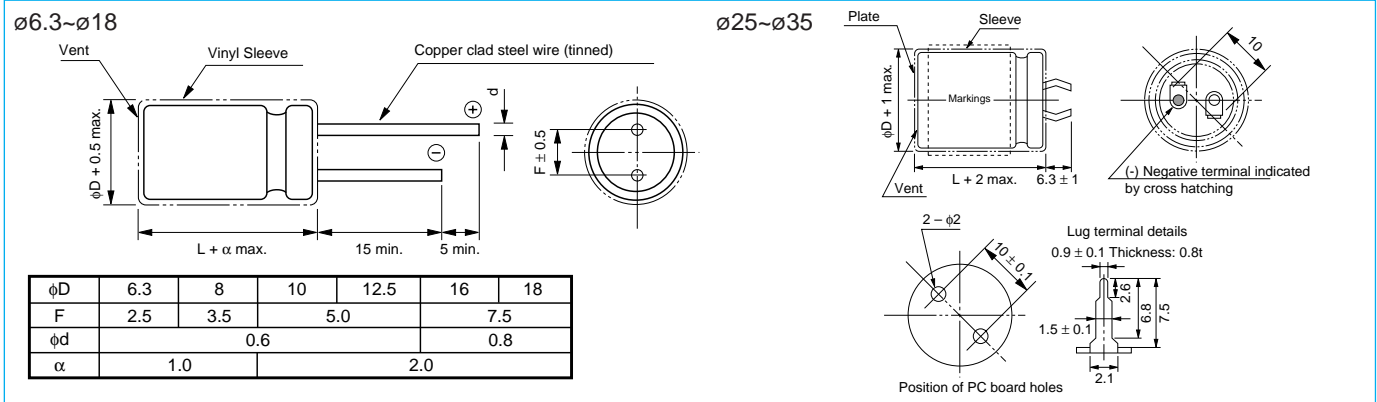
DYNACAP – Double Layer Capacitor

DZ Series

The DZ Series is an entirely new type of high current capacitor that has extremely low internal resistance (only 10% of standard double layer caps), capable of undergoing virtually unlimited charge/discharge cycles with no deterioration. With capacitance ranging from 1.0 to 100F and internal resistance from ≤0.08 to 1.0 ohms, they are ideal for CMOS backup, or they can function as a simple power supply.



Construction and Dimensions



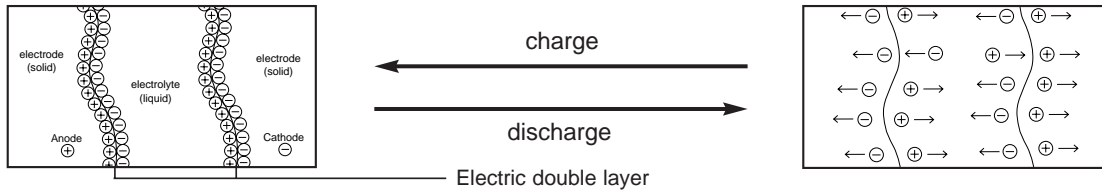
Specifications	Performance						
Temperature range (°C)	−40 to +70						
Capacitance tolerance (%)	−20 to +80						
Internal resistance at 1KHz	Capacitance (F)	1.0	3.3	4.7	10	50	100
	Internal resistance (Ω)	1.0	0.3	0.2	0.1	0.08	0.08
Stability at low & high temperature	Change in capacitance (-25 to 70°C)	Within ±30% of value at 20°C					
	Internal resistance (-40 to 70°C)	Less than five times of the value at 20°C					
Endurance (70°C)	Test time	1000 hrs					
	Change in capacitance	Within ±30% of the initial measured value					
	Internal resistance	Within four times the initial specified value					
Max. storage temp. (70°C)	Test time 1000hrs. Same as Endurance						

Standard Ratings

ELNA Parts No.	Rated Volt (V)	Capacitance (F)	Internal Resistance (Ω)	øD x L (mm)
DZ-2R5D105	2.5	1.0	≤1.00	ø8.0 x 22.0
DZ-2R5D335	2.5	3.3	≤0.30	ø12.5 x 23.0
DZ-2R5D475	2.5	4.7	≤0.20	ø12.5 x 31.5
DZ-2R5D106	2.5	10	≤0.10	ø18.0 x 35.0
DZ-2R5D506	2.5	50	≤0.08	ø25.0 x 40.0
DZ-2R5D107	2.5	100	≤0.08	ø35.0 x 50.0

DYNACAP – Double Layer Capacitor

DynaCap, double layer capacitor is miniaturized and large-capacity capacitor operated by making use of an electric double layer formed between a solid phase and liquid phase.

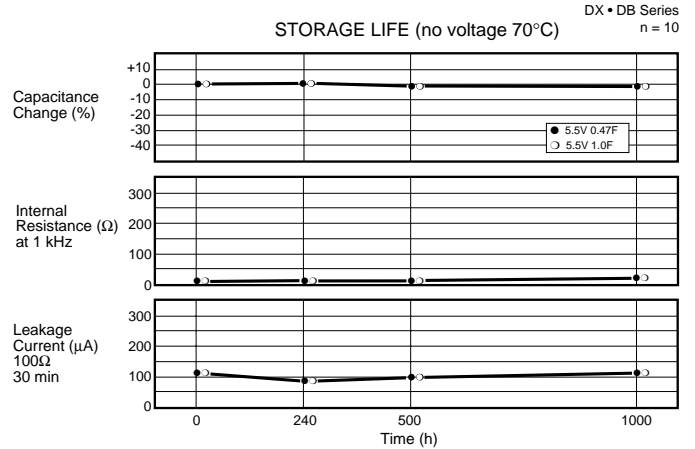
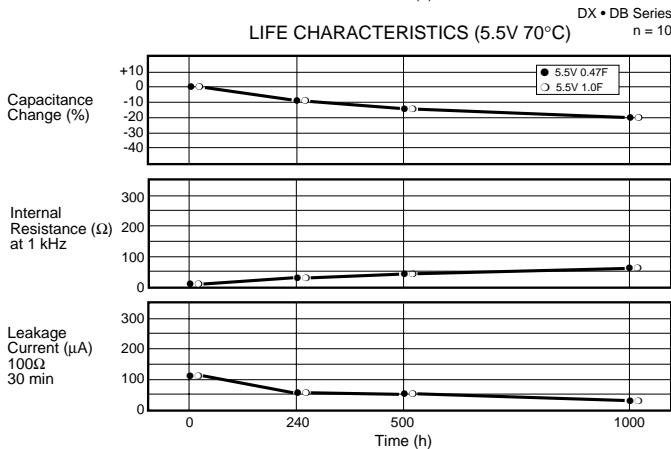
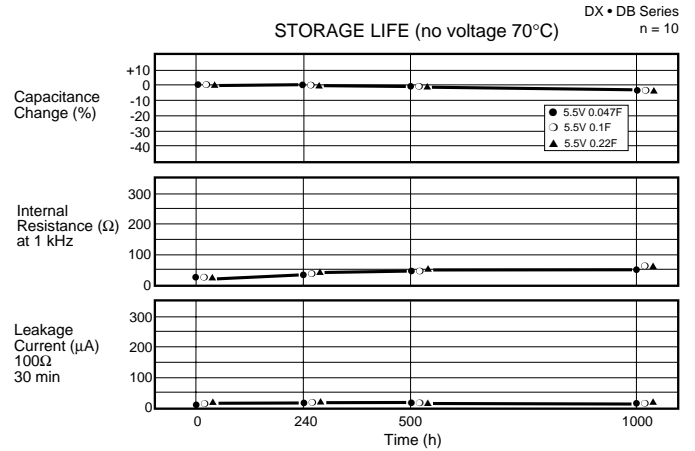
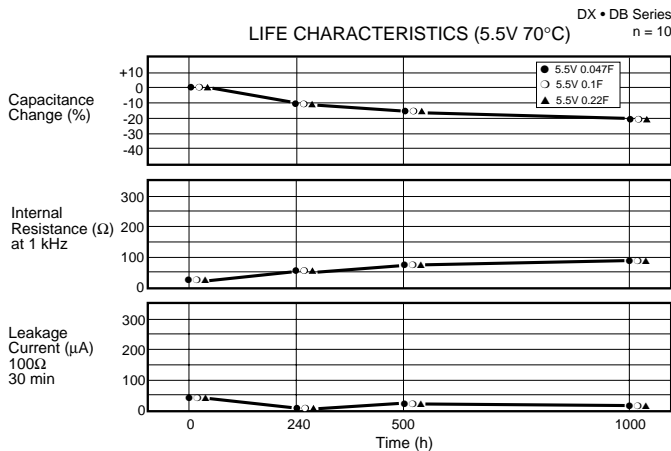
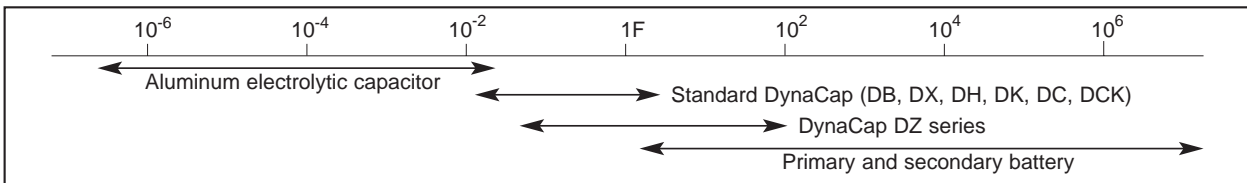


Comparison to secondary battery

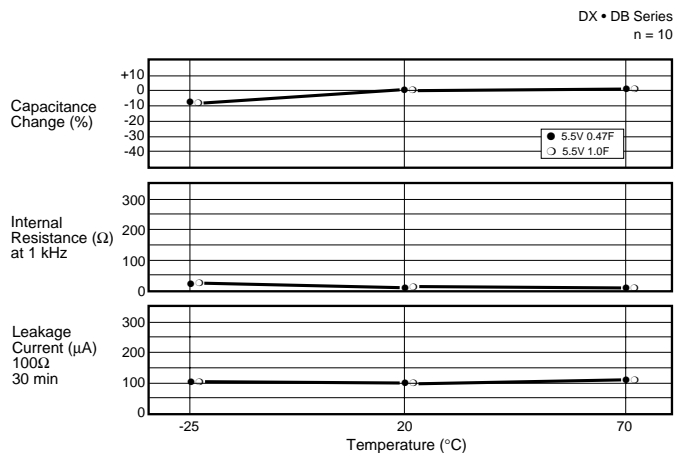
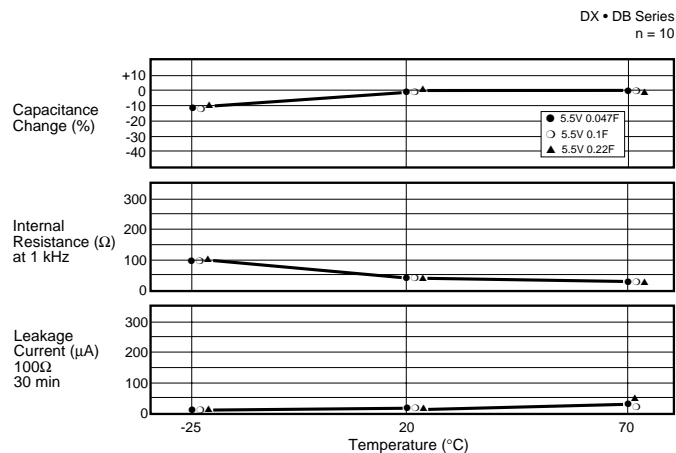
- This capacitor can be charged and discharged efficiently and quickly at high currents. (no chemical reaction)
- There is no limit for the number of charge and discharge cycles.
- It has wide operating temperature. (from -40° to 70°C)
- It does not contain heavy metals (toxic material) like Ni, Cd, Pb.
- It does not need control circuit for charge-discharge.

The large surface area of activated carbon (1800-2500 m/g) permits storage of a large amount of electric discharge.

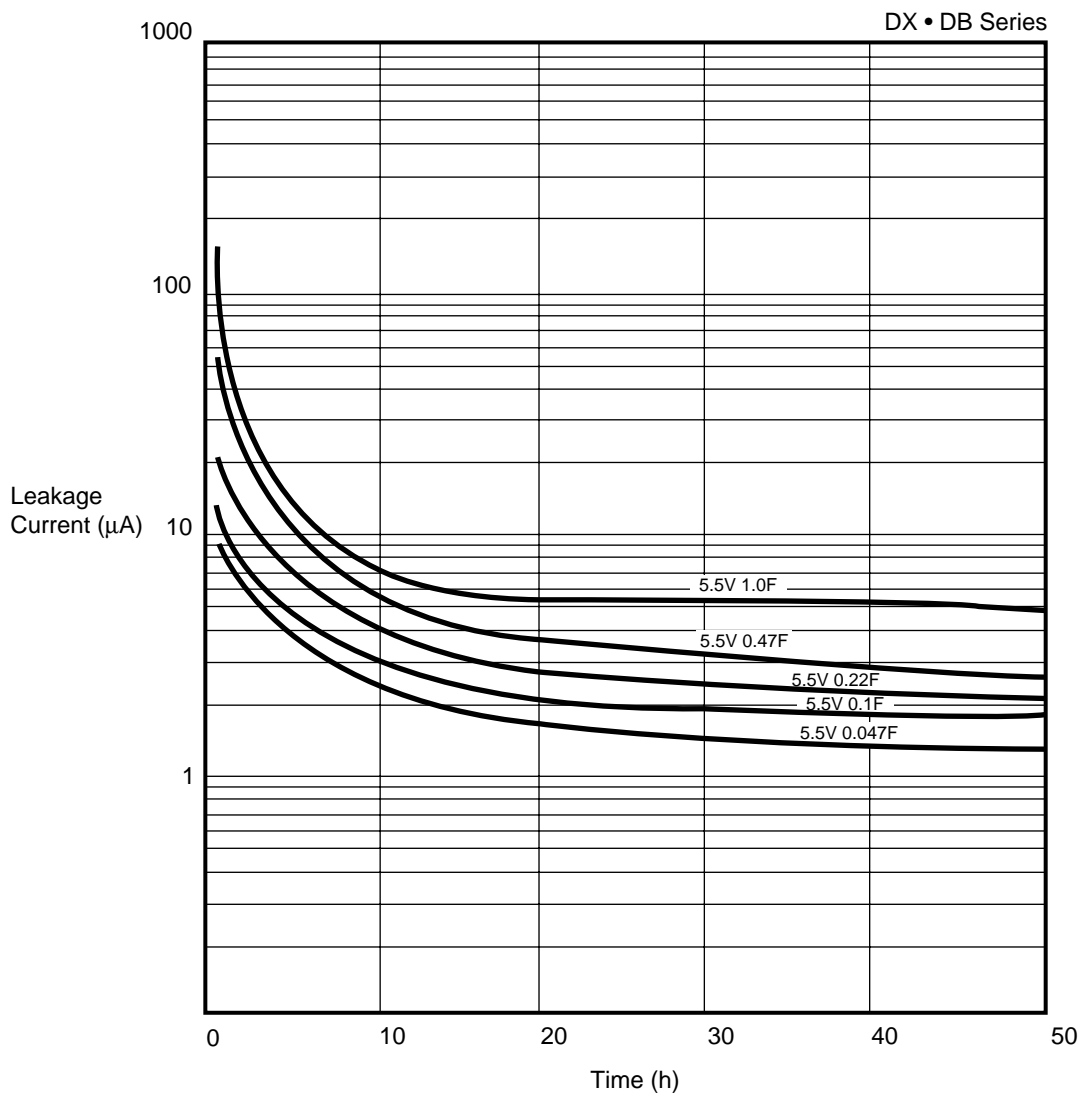
(This is about 1000 times larger than aluminum electrolytic capacitor!)



TEMPERATURE CHARACTERISTICS

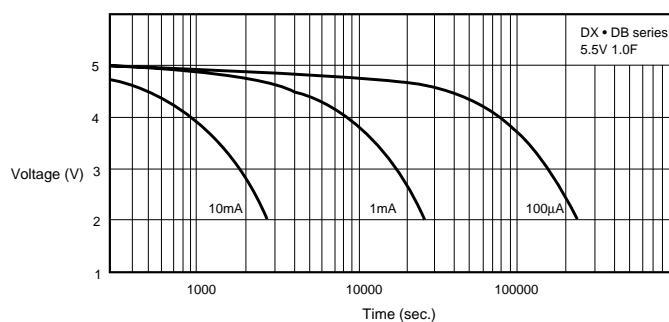
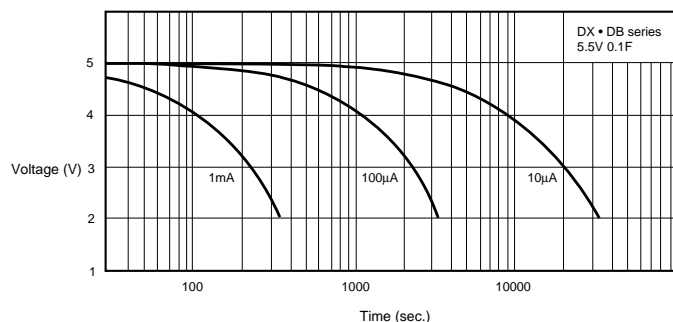
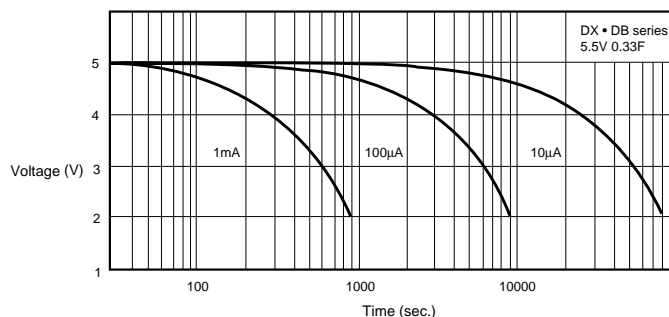
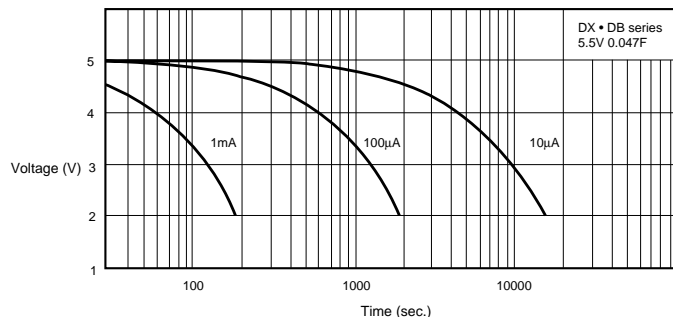
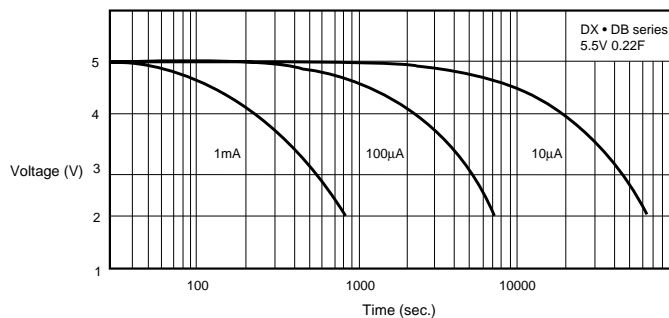


LONG TERM CHARGING CURRENT CHARACTERISTICS



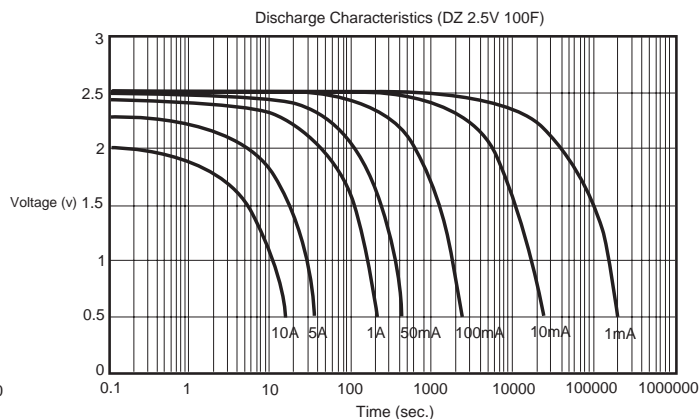
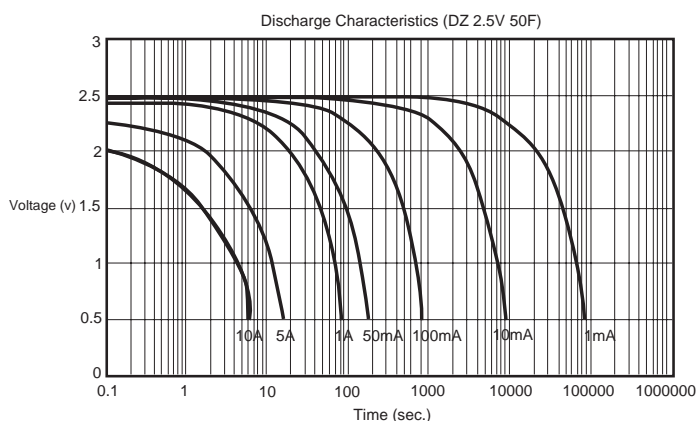
CONSTANT CURRENT DISCHARGE DX • DB SERIES

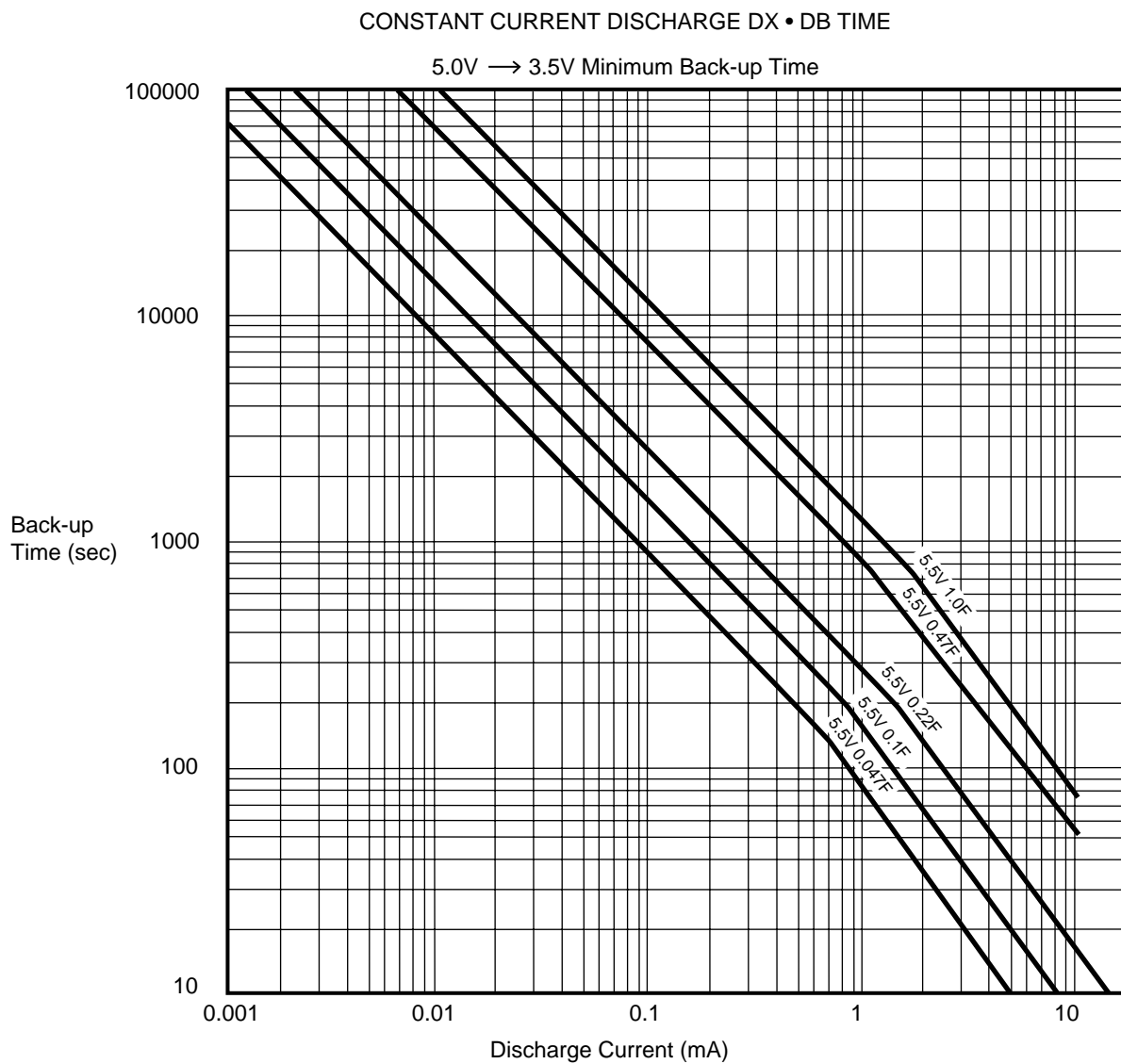
Charging voltage : 5.0V
 Charging time : 30 min.
 Temperature : room temp.



CONSTANT CURRENT DISCHARGE DZ SERIES

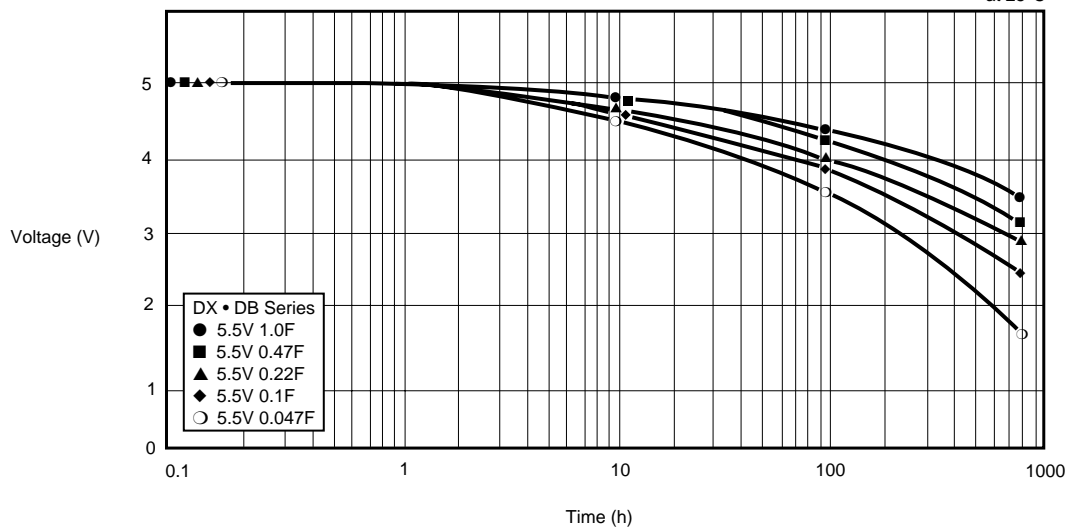
Charging voltage : 2.5V
 Temperature : room temp.





SELF DISCHARGE DX • DB SERIES

at 25°C



SELF DISCHARGE DZ SERIES

at 25°C

2.5V 1.0F (φ8.0 x 22.0/)

