CAP-XX

Preliminary DATASHEET

DMV3N3R0V704M2DTA0
3V, -20°C to +85°C

Preliminary V1.2, Mar 2023

Note: Specification may change without notice

Applications**:**

- Unique ultra-thin prismatic design replaces bulky 3V cylindrical EDLC in space constrained application.

- Provide high pulse power in application designed to use 3V primary battery.

- Battery-less low power application, at 3V 23% more energy is available than the same capacitance at 2.7V.

- Asset tracking.

- Energy Harvesting for remote sensors.

- RTC and memory backup power.

Electrical Specifications

Table 1: Absolute Maximum Ratings

Parameter	Name	Conditions	Min	Typical	Max	Units
Terminal Voltage	V_n				3	V
Temperature	T_{max}		-20		+85	°C

Table 2: Electrical Characteristics

Parameter	Conditions	DMV754	Units
Capacitance		700	mF
Tolerance		± 20	%
ESR	AC, 1kHz	≤ 150	mΩ
Peak current	$\dfrac{V}{ESR \times 2}$	10	A
Leakage Current I_L	3.0V, 23°C 120hrs	≤ 3	µA
	2.7V, 23°C 120hrs	≤ 1.5	µA
	2.3V, 23°C 120hrs	≤ 0.8	µA
Thickness		≤ 2.2	mm

Table 3: Mechanical specification

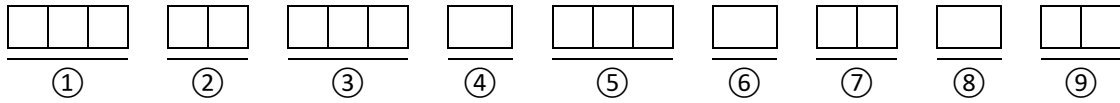|	Length (mm)	Width (mm)	Height (mm)
DMV3N3R0V704M2DTA0	21 ± 0.5mm	14 ± 0.5	2.2

Draft Mechanical drawing for DMV

Terminal Size
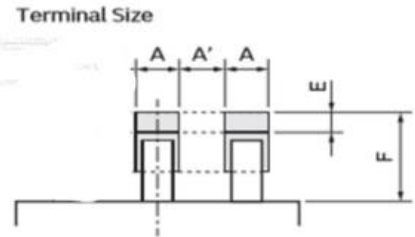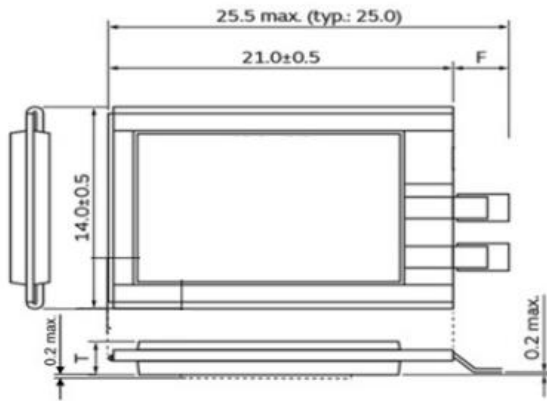
A=1.7±0.2
A'=1.8±0.5
E=0.9 (typ.)
F=4.5 max. (typ.: 4.0)
E: Length of Soldering Area

Landing Pad Dimensions

Minus Terminal   Plus Terminal

a=2.5mm
b=3.0 to 4.0mm
c=1.0mm
d=3.5mm
f=3.5mm

Land Pattern and Product Package
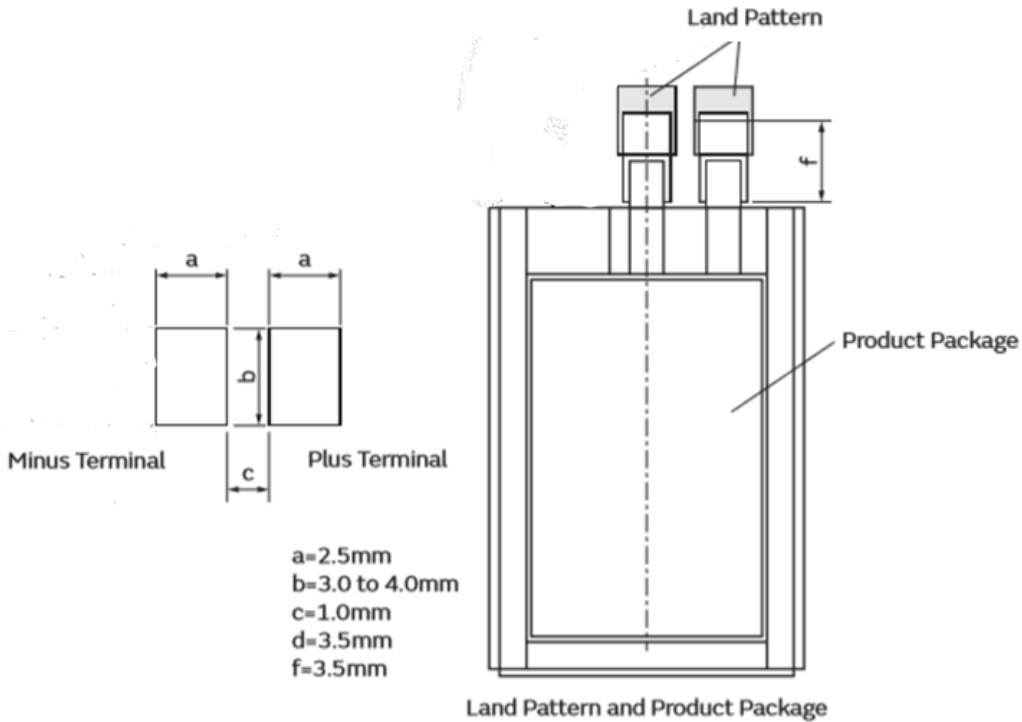
Part Numbering

① Series

Code	
DMV	High Voltage Type

② External Dimensions (L x W x T)

Code	L (mm)	W (mm)	T (mm)
3N	21.0±0.5	14.0±0.5	2.2

③ Rated Voltage

Code	Rated Voltage
3R0	DC 3V

④ ESR

Code	ESR @ 1kHz
V	150mΩ

⑤ Nominal Capacitance

First two are significant digits and the third expresses the number of zeroes which follow the two numbers

Code	Nominal Capacitance
704	$70 \times 10^4 \mu F$ = 700mF

⑥ Capacitance Tolerance

Code	Tolerance
M	±20%

⑦ External Terminal

Code	Terminal Specification
2D	2 Terminals (+/-)

⑧ Packaging

Code	Package Specification
T	Tray type, 50pcs/Tray

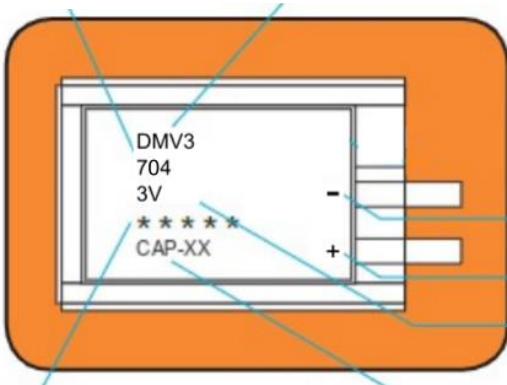⑨ Inhouse Specification Code

Expressed by two-digit alphanumerics

Printing

Capacitance

Series Code + LW Size Code

DMV3
704
3V
* * * * *
CAP-XX

Negative Terminal

Positive Terminal

Rated Voltage

Batch ID

Manufacturer (CAP-XX)

Batch ID

```
┌──┬──┐  ┌──┐  ┌──┬──┬──┐
└──┴──┘  └──┘  └──┴──┴──┘
 ───      ──    ────────
  ①        ②        ③
```

① Year

Code	Year
9	2019
A	2020
B	2021
C	2022
D	2023
:	:
Y	2044
Z	2045

② Month

Code	Month
F	January
G	February
H	March
J	April
K	May
L	June
M	July
N	August
P	September
Q	October
R	November
S	December

③ 3-digit Unique ID

This 3 digit number is used to uniquely identify the batch within the month.