

Preliminary DATASHEET

# DMV3N3R0V754M2DTA0

## 3V, 750mF, -20°C to +85°C Supercapacitor

Preliminary V1.2, Feb 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

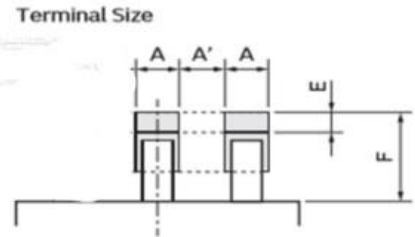
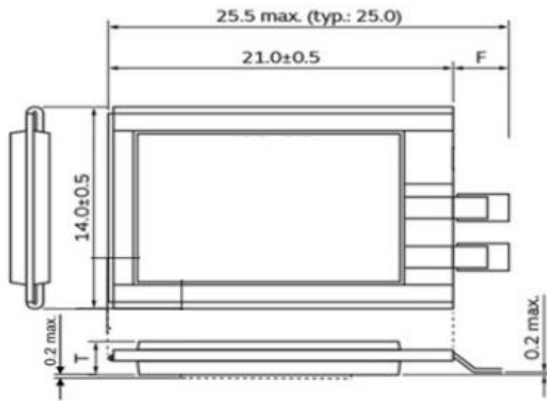
Table 2: Electrical Characteristics

Parameter	Conditions	DMV754	Units
Capacitance		750	mF
Tolerance		$\pm 20$	%
ESR	AC, 1kHz	$\leq 150$	m $\Omega$
Peak current	$\frac{V}{ESR \times 2}$	10	A
Leakage Current $I_L$	3.0V, 23°C 120hrs	$\leq 3$	$\mu$ A
	2.7V, 23°C 120hrs	$\leq 1.5$	$\mu$ A
	2.3V, 23°C 120hrs	$\leq 0.8$	$\mu$ A
Thickness		$\leq 2.2$	mm

**Table 3: Mechanical specification**

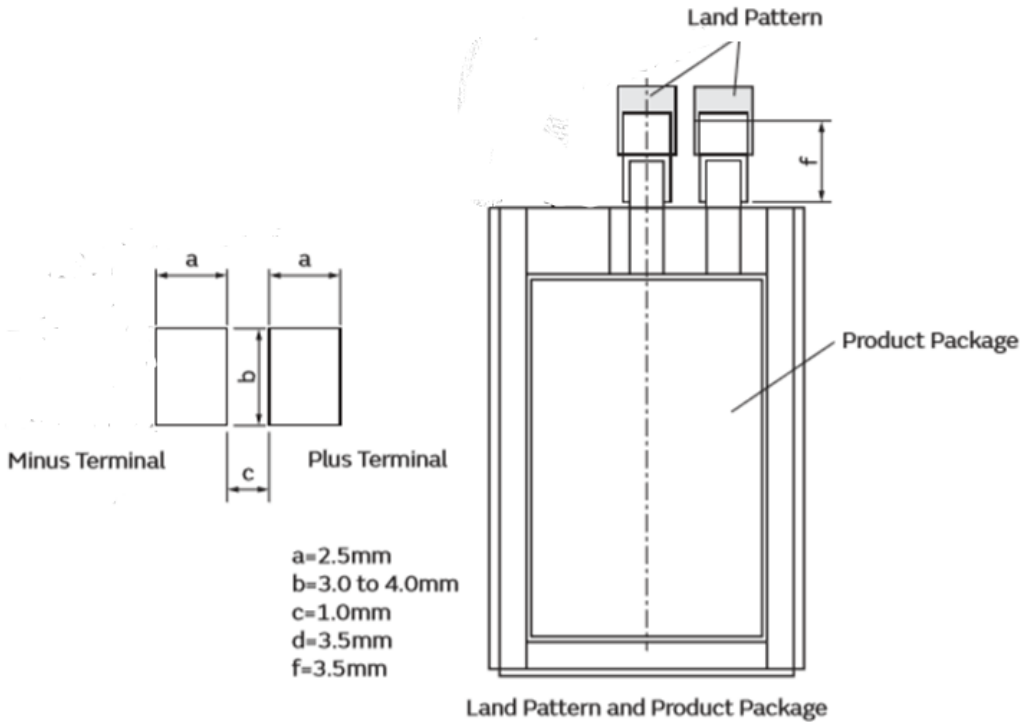
	Length (mm)	Width (mm)	Height (mm)
DMV3N3R0V754M2DTA0	21 ± 0.5mm	14 ± 0.5	2.2

**Draft Mechanical drawing for DMV**

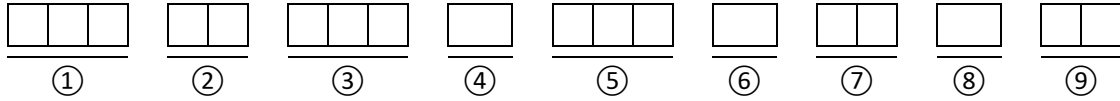


- A=1.7±0.2
- A'=1.8±0.5
- E=0.9 (typ.)
- F=4.5 max. (typ.: 4.0)
- E: Length of Soldering Area

**Landing Pad Dimensions**



## Part Numbering



### ① Series

Code	
<b>DMV</b>	High Voltage Type

### ② External Dimensions (L x W x T)

Code	L (mm)	W (mm)	T (mm)
<b>3N</b>	21.0±0.5	14.0±0.5	2.2

### ③ Rated Voltage

Code	Rated Voltage
<b>3R0</b>	DC 3V

### ④ ESR

Code	ESR @ 1kHz
<b>V</b>	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
<b>754</b>	75x10 <sup>4</sup> μF = 750mF

### ⑥ Capacitance Tolerance

Code	Tolerance
<b>M</b>	±20%

### ⑦ External Terminal

Code	Terminal Specification
<b>2D</b>	2 Terminals (+/-)

### ⑧ Packaging

Code	Package Specification
<b>T</b>	Tray type, 50pcs/Tray

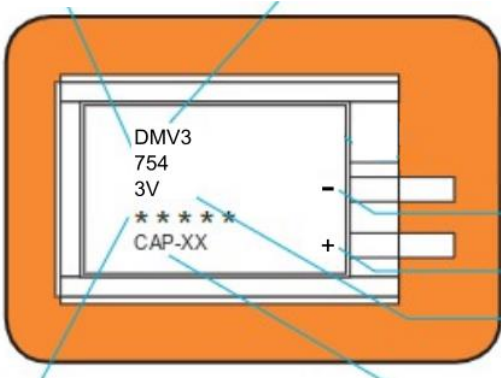
### ⑨ Inhouse Specification Code

Expressed by two-digit alphanumeric

## Printing

Capacitance

Series Code + LW Size Code



Negative Terminal

Positive Terminal

Rated Voltage

Batch ID

Manufacturer (CAP-XX or MURATA)

## Batch ID

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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.