# ELECTRIC DOUBLE LAYER CAPACITORS "DYNACAP"

DHL



# 5.5V SMD, Wide Temperature range Capacitors

GREEN CAP

- Size :  $\phi$ 12.5×10.5mm, compatible with surface mounting.
- $\bullet$  Wide temperature range (-40 to 85°C), Low ESR.
- Unlike batteries, safe and high reliability without containing active and hazardous substance.
- Unlike batteries, excellent charge and discharge characteristics with no chemical reactions.
- Responds to temperature 260°C during the reflow peek.



Marking color : White print on an brown sleeve

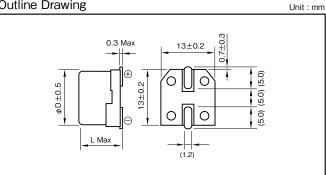
### Convert to chip

#### Specifications

| Item  | Performance                                     |   |     |      |  |
|---|---|---|-----|------|--|
| Category temperature range (°C)             | - 40 to +85                                     |   |     |      |  |
| Tolerance at rated capacitance (%)          | - 20 to +80                                     |   |     |      |  |
| Internal resistance<br>at 1 kHz             | Rated capacitance (F)                           | 0.047   | 0.1 | 0.22 |  |
|   | Internal resistance (Ω Max.)                    | 45  | 45  | 45   |  |
| Characteristics at high and low temperature | Percentage of capacitance change                | Within $\pm 30\%$ of the value at $20^{\circ}\text{C}$  |     |      |  |
|   | Internal resistance                             | −40°C : Less than seven times of the value at 20°C 85°C : Less than five times of the value at 20°C |     |      |  |
| Endurance (85℃)                             | Test time                                       | 1000 hours  |     |      |  |
|   | Percentage of capacitance change                | Within ±30% of the initial measured value   |     |      |  |
|   | Internal resistance                             | Less than four times of the initial specified value   |     |      |  |
| Shelf life (85°C)                           | Test time: 1000 hours; Same as endurance.       |   |     |      |  |
| Applicable standards                        | Conforms to JIS C5160-1 2009 (IEC 62391-1 2006) |   |     |      |  |

DVL

## **Outline Drawing**



| Recommended land pattern size | Unit : mm |
|-------------------------------|-----------|
| 3.2<br>  <del>◀ ▶</del>       |           |
| ⊕ <b>(</b> 0°9                |           |
| 4,00                          |           |
|                               |           |

| Part numbering system (example : 5.5V0.1F) |                               |               |                          |     |                  |  |
|--|-------------------------------|---------------|--------------------------|-----|------------------|--|
| DVL -                                      | – 5R5                         | D             | 104                      | T — | R5               |  |
| Series code                                | Max. operating voltage symbol | Terminal code | Rated capacitance symbol |     | Taping<br>symbol |  |

Part number is refer to following table.

## Standard Ratings

| Max. operating voltage (V) | Rated capacitance (F) | ELNA Parts No.  | φD×L (mm) |
|----------------------------|-----------------------|-----------------|-----------|
| 5.5                        | 0.047                 | DVL-5R5D473T-R5 | 12.5×10.5 |
| 5.5                        | 0.1                   | DVL-5R5D104T-R5 | 12.5×10.5 |
| 5.5                        | 0.22                  | DVL-5R5D224T-R5 | 12.5×10.5 |

<sup>\*</sup>soldering conditions are described on page 191.