

### FEATURES

- HIGH CAPACITANCE FOR POWER BACK-UP
- AVAILABLE IN HIGH VOLTAGE, SERIES CONNECTED MODULE\*
- (TWO OR MORE DEPENDING ON VOLTAGE REQUIREMENT)
- SUITABLE FOR FLOW SOLDERING
- LEAD-FREE FINISH

**RoHS  
Compliant**

includes all homogeneous materials



### CHARACTERISTICS

|                                              |                                        |                                               |
|----------------------------------------------|----------------------------------------|-----------------------------------------------|
| Rated Voltage Range                          | 5.0VDC                                 |                                               |
| Rated Capacitance Range                      | 0.47F ~ 4.7F (470,000μF ~ 4,700,000μF) |                                               |
| Operating Temp. Range                        | -25°C ~ +70°C                          |                                               |
| Capacitance Tolerance                        | +80%/-20% (Z)                          |                                               |
| Load Life Test @ 70°C<br>1,000 hours         | Δ Capacitance Change                   | Less than ±30% of initial measured value      |
|                                              | Maximum ESR                            | Less than 400% of the specified maximum value |
| Temperature Characteristics<br>-25°C & +70°C | Δ Capacitance Change                   | Within ±30% of 20°C value                     |
|                                              | Maximum ESR                            | 500% of 20°C value                            |
| Shelf Life @ +70°C<br>(1,000 hours)          | Δ Capacitance Change                   | Less than ±30% of initial measured value      |
|                                              | Maximum ESR                            | Less than 400% of the specified maximum value |

Super Capacitor  
Application Guide

### STANDARD VALUES AND SPECIFICATIONS

| NIC P/N              | Case Size<br>(mm) | Lead-Space<br>(mm) | Capacitance<br>(F) | Voltage<br>(Vdc) | Max. Leakage Current<br>(mA) | ESR @ 1KHz |      |
|----------------------|-------------------|--------------------|--------------------|------------------|------------------------------|------------|------|
|                      |                   |                    |                    |                  |                              | Typ.       | Max. |
| NEDZP474Z5V8.5X16AF  | 8.5X17X16         | 5.1                | 0.47               | 5.0              | 0.2mA @ 24 hours             | 600mΩ      | 2.0Ω |
| NEDZP474Z5V8.5X16BF  |                   | 12.1               |                    |                  |                              |            |      |
| NEDZP105Z5V8.5X24AF  | 8.5X17X24         | 5.1                | 1.0                | 5.0              | 0.3mA @ 24 hours             | 250mΩ      | 1.0Ω |
| NEDZP105Z5V8.5X24BF  |                   | 12.1               |                    |                  |                              |            |      |
| NEDZP155Z5V8.5X24AF  | 8.5X17X24         | 5.1                | 1.5                | 5.0              | 0.4mA @ 24 hours             | 250mΩ      | 1.0Ω |
| NEDZP155Z5V8.5X24BF  |                   | 12.1               |                    |                  |                              |            |      |
| NEDZP335Z5V10.5X34AF | 10.5X21X34        | 5.5                | 3.3                | 5.0              | 0.8mA @ 24 hours             | 100mΩ      | 0.4Ω |
| NEDZP335Z5V10.5X34BF |                   | 15.5               |                    |                  |                              |            |      |
| NEDZP475Z5V10.5X39AF | 10.5X21X39        | 5.5                | 4.7                | 5.0              | 1.0mA @ 24 hours             | 80mΩ       | 0.4Ω |
| NEDZP475Z5V10.5X39BF |                   | 15.5               |                    |                  |                              |            |      |

\*Contact NIC for information on ordering series connected, high voltage parts.



### PART NUMBER SYSTEM

NEDZP 475 Z 5V 10.5X39 A F

Series | Capacitance Code in μF, first 2 digits are significant, third digit is no. of zeros | Working Voltage | Size in mm | Lead-space Option (see Standard Values and Specifications table) | RoHS Compliant

Tolerance Code Z = +80%/-20%

### PRECAUTIONS

WASHING is NOT RECOMMENDED. Additional guidelines and precautions can be found at [www.niccomp.com/precautions](http://www.niccomp.com/precautions)  
If in doubt or uncertainty, please review your specific application - process details with NIC's technical support personnel: [tpmg@niccomp.com](mailto:tpmg@niccomp.com)



### CASE DIMENSIONS (mm)

| NIC P/N              | DIMENSIONS (mm) |             |             |      |     |
|----------------------|-----------------|-------------|-------------|------|-----|
|                      | L max.          | W $\pm$ 0.5 | T $\pm$ 0.5 | S    | d   |
| NEDZP474Z5V8.5X16AF  | 16.0            | 17.0        | 8.5         | 5.1  | 0.6 |
| NEDZP474Z5V8.5X16BF  |                 |             |             | 12.1 |     |
| NEDZP105Z5V8.5X24AF  | 24.0            | 17.0        | 8.5         | 5.1  | 0.6 |
| NEDZP105Z5V8.5X24BF  |                 |             |             | 12.1 |     |
| NEDZP155Z5V8.5X24AF  | 24.0            | 17.0        | 8.5         | 5.1  | 0.6 |
| NEDZP155Z5V8.5X24BF  |                 |             |             | 12.1 |     |
| NEDZP335Z5V10.5X34AF | 34.0            | 21.0        | 10.5        | 5.5  | 0.6 |
| NEDZP335Z5V10.5X34BF |                 |             |             | 15.5 |     |
| NEDZP475Z5V10.5X39AF | 39.0            | 21.0        | 10.5        | 5.5  | 0.6 |
| NEDZP475Z5V10.5X39BF |                 |             |             | 15.5 |     |

