

www.niccomp.com/pcn | Technical Support: tpmg@niccomp.com

January 14, 2013

SUB: EOL – End of Life Notification

Products Impacted by this notice:

NEDR series - Radial LDD Double Layer Capacitors

NIC Part Numbers: See below part number table;

REASON FOR CHANGE: Production resources allocated to produce alternate components LAST ORDER DATE: (for established business; from existing customers): July 12<sup>th</sup> 2013

| EOL Part Numbers     | Capacitance | VDC | Size      | Temp Range    | Life Test Rating | Replacement Part Numbers   | Exceptions & Comments                     |
|----------------------|-------------|-----|-----------|---------------|------------------|--|---|
| NEDR106N2.7V10X35F   | 10 F        | 2.7 | 10 x 35   | -25°C ~ +70°C | 1000 hours       | NEDZ106Z2.7V10X35F<br>NEDZN106Z2.7V10X35F  | Same Size, Temp & Life Ratings            |
| NEDR226N2.7V12.5X35F | 22 F        | 2.7 | 12.5 x 35 | -25°C ~ +70°C | 1000 hours       | NEDZ206Z2.7V18X35F<br>NEDZN206Z2.7V18X35F  | 20F, 18mm Dia replacements                |
| NEDR506N2.7V18X40F   | 50 F        | 2.7 | 18 x 40   | -25°C ~ +60°C | 1000 hours       | NEDZH506Z2.5V18X40F  | Same Size, Temp & Life Ratings, in 2.5VDC |
| NEDR107N2.7V22X50F   | 100 F       | 2.7 | 22 x 50   | -25°C ~ +60°C | 1000 hours       | NEDL107M2.5V22X65F<br>NEDZ107Z2.5V25X50F<br>NEDZH107Z2.5V25X50F<br>NEDZN107Z2.5V25X50F | 25mm Dia, 2.5VDC, with Temp upgrade       |

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- → Follow NIC PCN alerts to get email notifications of EOL and PCN announcements at <a href="www.niccomp.com/pcn">www.niccomp.com/pcn</a>
- → See NIC *QuickBuilder* to select and compare alternates:
- →www.niccomp.com/quickbuilder/qb capacitor.php?pType=double

#### **FEATURES**

- DOUBLE LAYER CONSTRUCTION
- RAPID CHARGE/DISCHARGE APPLICATIONS
   & ENERGY BACK-UP APPLICATIONS
- LONG LIFE (CHARGE/DISCHARGE CYCLES)

# RoHS Compliant includes all homogeneous materials

\*See Part Number System for Details



#### **CHARACTERISTICS**

| Rated Voltage Range                                      | 2.5 ~ 2.7VDC  |   |
|--|---|---|
| Rated Capacitance Range                                  | 1.0F ~ 200F   |   |
| Operating Town Dange                                     | -25°C ~ +70°C (1.0F ~ 10F)                                  |   |
| Operating Temp. Range                                    | -25°C ~ +60°C (22F ~ 200F)                                  |   |
| Capacitance Tolerance                                    | ±30% (N) @ +20°C  |   |
| Load Life Test - 1,000 hours<br>@+70°C (1.0F ~ 10F)      | ∆ Capacitance Change  | Less than ≤ 70% of initial measured value     |
| @+60°C (22F ~ 200F)                                      | Maximum ESR   | Less than 200% of the specified maximum value |
| Temperature Cycling (5 cycles)                           | $\Delta$ Capacitance Change                                 |   |
| -25°C ~ +70°C (1.0F ~ 10F)<br>-25°C ~ +60°C (22F ~ 200F) | $\Delta$ Change in Internal Resistance (m $\Omega$ at 1KHz) | Meet Initial Standard Value                   |
| Humidity Resistance<br>240 hours @ 40°C/90% RH           | Δ Capacitance Change  | Less than 20% of initial value                |
| (no load)  | Maximum ESR   | Less than 150% of initial value               |

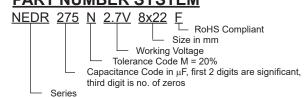
### LOW AND HIGH TEMPERATURE CHARACTERISTICS

|                    | _            |                             |  |  |
|--------------------|--------------|-----------------------------|--|--|
| TEMPERATURE        | CHARTERISTIC |                             |  |  |
| -25°C              | Capacitance  | > 70% of initial value      |  |  |
| -25 C              | ESR          | ≤ 500% of initial value     |  |  |
| +60°C (22F & 200F) | Capacitance  | ≤ 200% of initial value     |  |  |
| +70°C (1.0F & 10F) | ESR          | Not to exceed initial value |  |  |

#### STANDARD VALUES AND SPECIFICATIONS

| NIC P/N              | Capacitance Value (F) | Rated Voltage<br>(VDC) | Leakage Current @ after 30 min. (mA) | Max. ESR @<br>1KHz (Ω) |
|----------------------|-----------------------|------------------------|--------------------------------------|------------------------|
| NEDR105N2.7V8X12F    | 1.0                   | 2.7                    | 0.8                                  | <u>≤</u> 0.3           |
| NEDR275N2.7V8X22F    | 2.7                   | 2.7                    | 2.2                                  | ≤ 0.3                  |
| NEDR475N2.7V10X20F   | 4.7                   | 2.7                    | 3.8                                  | <u>≤</u> 0.1           |
| NEDR106N2.7V10X35F   | 10                    | 2.7                    | 8                                    | <u>≤</u> 0.1           |
| NEDR226N2.7V12.5X35F | 22                    | 2.7                    | 18                                   | ≤ 0.1                  |
| NEDR506N2.5V18X40F   | 50                    | 2.5                    | 40                                   | ≤ 0.05                 |
| NEDR107N2.7V25X50F   | 100                   | 2.7                    | 81                                   | ≤ 0.03                 |
| NEDR207N2.7V35X50F   | 200                   | 2.7                    | 162                                  | ≤ 0.03                 |

# PART NUMBER SYSTEM



#### **PRECAUTIONS**

Please review the notes on correct use, safety and precautions found at https://www.niccomp.com/resource/files/double/Double\_Layer\_Capacitor\_Guide\_0810-RevBrA7.pdf If in doubt or uncertainty, please review your specific application - process details with NIC's technical support personnel: tpmg@niccomp.com



# **CASE DIMENSIONS (mm)**

| NIC P/N              | DIMENSIONS (mm) |      |      |     |     |     |               |
|----------------------|-----------------|------|------|-----|-----|-----|---------------|
| NIC P/N              | D               | Н    | S    | dφ  | α   | β   | Configuration |
| NEDR105N2.7V8X12F    | 8               | 12   | 3.5  | 0.6 | 0.5 | 2.0 | Fig. 1        |
| NEDR275N2.7V8X22F    | 8               | 22   | 3.5  | 0.6 | 0.5 | 2.0 | Fig. 1        |
| NEDR475N2.7V10X20F   | 10              | 20   | 5.0  | 0.6 | 0.5 | 2.0 | Fig. 1        |
| NEDR106N2.7V10X35F   | 10.0            | 35.0 | 5.0  | 0.6 | 0.5 | 2.0 | Fig. 1        |
| NEDR226N2.7V12.5X35F | 12.5            | 35.0 | 5.0  | 0.8 | 0.5 | 2.0 | Fig. 1        |
| NEDR506N2.5V18X40F   | 18.0            | 40.0 | 7.5  | 0.8 | 0.5 | 5.0 | Fig. 1        |
| NEDR107N2.7V25X50F   | 25.0            | 50.0 | 10.0 | -   | 1.0 | 5.0 | Fig. 2        |
| NEDR207N2.7V35X50F   | 35.0            | 50.0 | 10.0 | -   | 1.0 | 5.0 | Fig. 2        |

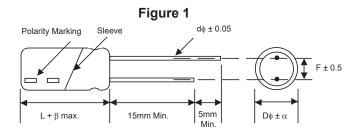
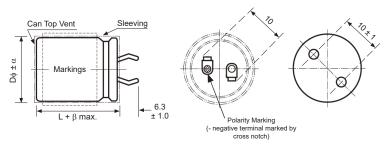
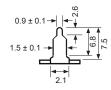
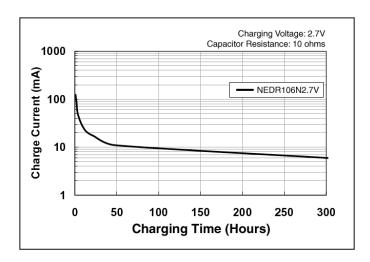


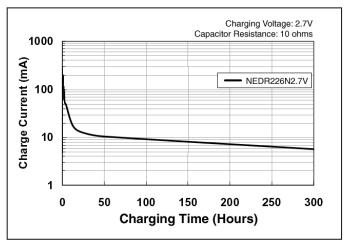
Figure 2

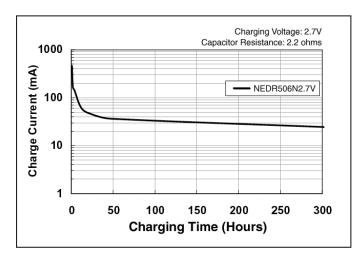


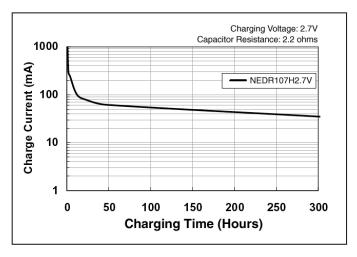


#### **NEDR CHARGING CHARACTERISTICS**

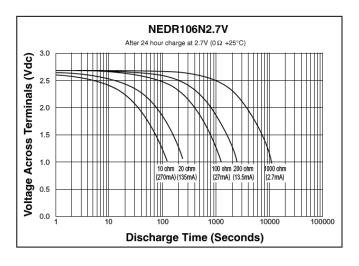


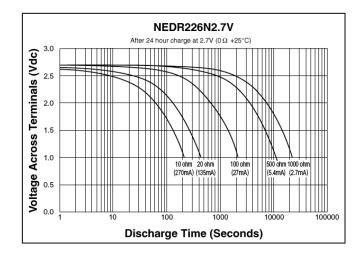




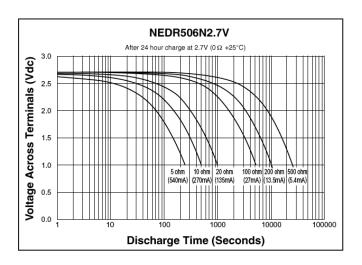


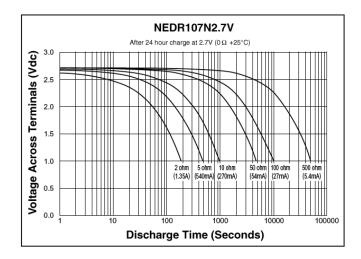
# **NEDR DISCHARGE CURRENT CHARACTERISTICS**





## **NEDR DISCHARGE CURRENT CHARACTERISTICS**





## **PACKAGE QUANTITY**

| NIC P/N              | Bulk Package Qty |
|----------------------|------------------|
| NEDR105N2.7V8X12F    |                  |
| NEDR275N2.7V8X22F    |                  |
| NEDR475N2.7V10X20F   |                  |
| NEDR106N2.7V10X35F   | 800              |
| NEDR226N2.7V12.5X35F | 512              |
| NEDR506N2.5V18X40F   | 360              |
| NEDR107N2.7V25X50F   |                  |
| NEDR207N2.7V35X50F   |                  |