

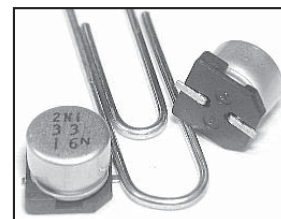
# Surface Mount Aluminum Electrolytic Capacitors NACNW Series

## FEATURES

- CYLINDRICAL V-CHIP CONSTRUCTION FOR SURFACE MOUNTING
- NON-POLARIZED, 1000 HOURS AT 105°C
- 5.5mm HEIGHT
- ANTI-SOLVENT (2 MINUTES)
- DESIGNED FOR REFLOW SOLDERING

**RoHS  
Compliant**  
includes all homogeneous materials

\*See Part Number System for Details



## CHARACTERISTICS

|                                                                           |                    |                                        |      |      |      |      |      |      |
|---------------------------------------------------------------------------|--------------------|----------------------------------------|------|------|------|------|------|------|
| Rated Voltage Range                                                       | 6.3 ~ 63Vcc        |                                        |      |      |      |      |      |      |
| Rated Capacitance Range                                                   | 1.0 ~ 47μF         |                                        |      |      |      |      |      |      |
| Operating Temp. Range                                                     | -55 ~ +105°C       |                                        |      |      |      |      |      |      |
| Capacitance Tolerance                                                     | ±20% (M)           |                                        |      |      |      |      |      |      |
| Max. Leakage Current<br>After 1 Minutes @ 20°C                            | 0.03CV + 8μA max.  |                                        |      |      |      |      |      |      |
| Tan δ @ 120Hz/20°C                                                        | W.V. (Vdc)         | 6.3                                    | 10   | 16   | 25   | 35   | 50   | 63   |
|                                                                           | Tan δ @ 120Hz/20°C | 0.24                                   | 0.22 | 0.20 | 0.20 | 0.20 | 0.18 | 0.16 |
| Low Temperature Stability<br>Impedance Ratio @ 120Hz                      | W.V. (Vdc)         | 6.3                                    | 10   | 16   | 25   | 35   | 50   | 79   |
|                                                                           | Z -25°C/Z +20°C    | 3                                      | 3    | 2    | 2    | 2    | 2    | 2    |
|                                                                           | Z -40°C/Z +20°C    | 8                                      | 8    | 4    | 4    | 3    | 3    | 3    |
| Load Life Test<br>105°C 1,000 Hours<br>(Reverse polarity every 500 Hours) | Capacitance Change | Within ±25% of initial measured value  |      |      |      |      |      |      |
|                                                                           | Tan δ              | Less than 200% of specified max. value |      |      |      |      |      |      |
|                                                                           | Leakage Current    | Less than specified max. value         |      |      |      |      |      |      |

## STANDARD VALUES, CASE SIZES & SPECIFICATIONS

| Part Number               | Cap.<br>(μF) | Working<br>Voltage | Max. ESR (Ω)<br>AT 120Hz/20°C | Max. Ripple Current (mA rms)<br>AT 120Hz/105°C |
|---------------------------|--------------|--------------------|-------------------------------|------------------------------------------------|
| NACNW220M6.3V5X5.5TR13F   | 22           | 6.3Vdc             | 18.09                         | 22                                             |
| NACNW330M6.3V6.3X5.5TR13F | 33           |                    | 12.06                         | 27                                             |
| NACNW470M6.3V6.3X5.5TR13F | 47           |                    | 8.47                          | 33                                             |
| NACNW100M10V4X5.5TR13F    | 10           | 10Vdc              | 36.49                         | 12                                             |
| NACNW220M10V6.3X5.5TR13F  | 22           |                    | 16.59                         | 25                                             |
| NACNW330M10V6.3X5.5TR13F  | 33           |                    | 11.06                         | 30                                             |
| NACNW4R7M16V4X5.5TR13F    | 4.7          | 16Vdc              | 70.58                         | 8                                              |
| NACNW100M16V5X5.5TR13F    | 10           |                    | 33.17                         | 17                                             |
| NACNW220M16V6.3X5.5TR13F  | 22           |                    | 15.08                         | 27                                             |
| NACNW330M16V6.3X5.5TR13F  | 33           |                    | 10.05                         | 40                                             |
| NACNW3R3M25V4X5.5TR13F    | 3.3          | 25Vdc              | 100.53                        | 7                                              |
| NACNW4R7M25V5X5.5TR13F    | 4.7          |                    | 70.58                         | 13                                             |
| NACNW100M25V6.3X5.5TR13F  | 10           |                    | 33.17                         | 20                                             |
| NACNW2R2M35V4X5.5TR13F    | 2.2          | 35Vdc              | 150.79                        | 5.9                                            |
| NACNW3R3M35V5X5.5TR13F    | 3.3          |                    | 100.53                        | 12                                             |
| NACNW4R7M35V5X5.5TR13F    | 4.7          |                    | 70.58                         | 14                                             |
| NACNW100M35V6.3X5.5TR13F  | 10           |                    | 33.17                         | 21                                             |
| NACNW1R0M50V4X5.5TR13F    | 1.0          | 50Vdc              | 298.57                        | 7                                              |
| NACNW2R2M50V5X5.5TR13F    | 2.2          |                    | 135.71                        | 10                                             |
| NACNW3R3M50V5X5.5TR13F    | 3.3          |                    | 90.47                         | 13                                             |
| NACNW4R7M50V6.3X5.5TR13F  | 4.7          |                    | 63.52                         | 16                                             |
| NACNW100M50V6.3X5.5TR13F  | 10           |                    | 23.89                         | 18                                             |
| NACNW1R0M63V4X5.5TR13F    | 1.0          | 63                 | 265.39                        | 7                                              |
| NACNW2R2M63V5X5.5TR13F    | 2.2          |                    | 120.63                        | 10                                             |
| NACNW3R3M63V6.3X5.5TR13F  | 3.3          |                    | 80.42                         | 13                                             |
| NACNW4R7M63V6.3X5.5TR13F  | 4.7          |                    | 54.47                         | 16                                             |

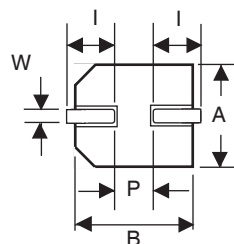
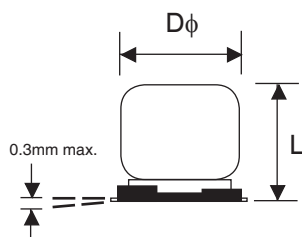
For Automotive Equipment see part number system



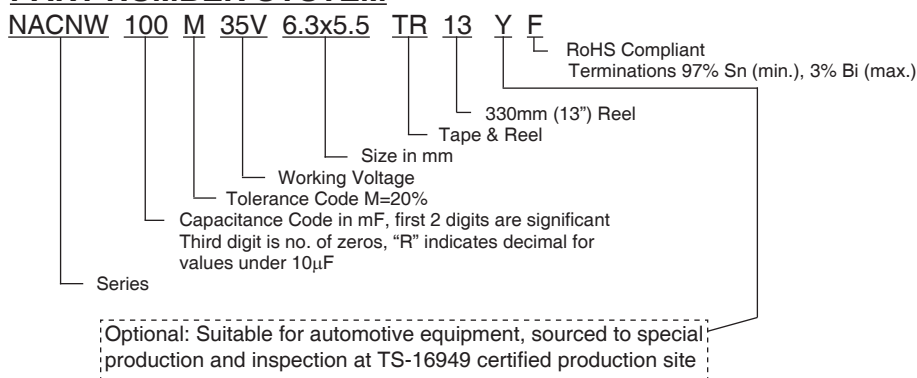
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## DIMENSIONS (mm)

| Case Size | $D\phi \pm 0.5$ | L max. | $A \pm 0.2$ | $I \pm 0.2$ | W         | $P \pm 0.2$ |
|-----------|-----------------|--------|-------------|-------------|-----------|-------------|
| 4x5.5     | 4.0             | 5.5    | 4.3         | 1.8         | 0.5 ~ 0.8 | 1.0         |
| 5x5.5     | 5.0             | 5.5    | 5.3         | 2.1         | 0.5 ~ 0.8 | 1.4         |
| 6.3x5.5   | 6.3             | 5.5    | 6.6         | 2.5         | 0.5 ~ 0.8 | 2.2         |



## PART NUMBER SYSTEM



## PRECAUTIONS

Please review the notes on correct use, safety and precautions found on pages T10 & T11 of NIC's **Electrolytic Capacitor catalog**.  
 Also 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)

