

Surface Mount Aluminum Electrolytic Capacitors NACY Series

FEATURES

- CYLINDRICAL V-CHIP CONSTRUCTION FOR SURFACE MOUNTING
- LOW IMPEDANCE AT 100KHZ (Up to 20% lower than NACZ)
- WIDE TEMPERATURE RANGE (-55 +105°C)
- DESIGNED FOR AUTOMATIC MOUNTING AND REFLOW SOLDERING
- MEETS THE REQUIREMENTS OF AEC-Q200*

**RoHS
Compliant**
includes all homogeneous materials

*See Part Number System for Details



*Contact NIC for supporting test data

CHARACTERISTICS

| | | | | | | | | | | | | |
|--|--------------------|--|-----------------------|------|------|------|------|------|------|------|------|------|
| Rated Capacitance Range | | 2.2 ~ 6800 μ F | | | | | | | | | | |
| Operating Temperature Range | | - 55°C + 105°C | | | | | | | | | | |
| Capacitance Tolerance | | \pm 20% (120Hz/+20°C) | | | | | | | | | | |
| Max. Leakage Current after 2 minutes at 20°C | | 0.01CV or 3 μ A | | | | | | | | | | |
| Max. Tan δ at 120Hz & 20°C | W.V.(Vdc) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 80 | 100 | | |
| | S.V.(Vdc) | 8 | 13 | 20 | 32 | 44 | 63 | 80 | 100 | 125 | | |
| | Tan δ | ϕ 4 to ϕ 6.3 | 0.24 | 0.20 | 0.16 | 0.14 | 0.12 | 0.12 | 0.10 | 0.08 | 0.07 | |
| | | ϕ 8 ~ ϕ 16 | C \leq 1500 μ F | 0.28 | 0.24 | 0.20 | 0.16 | 0.14 | 0.14 | 0.12 | 0.10 | 0.08 |
| | | | C=2200 μ F | - | 0.26 | - | 0.18 | - | - | - | - | - |
| | | | C=3300 μ F | 0.32 | - | 0.24 | - | - | - | - | - | - |
| C=4700 μ F | | | - | 0.30 | - | - | - | - | - | - | - | |
| C=6800 μ F | 0.36 | - | - | - | - | - | - | - | - | - | | |
| Low Temperature Stability (Impedance Ratio at 120 Hz) | Z -40°C/Z +20°C | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| | Z -55°C/Z +20°C | 5 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| Load Life Test AT 105°C 4 ~ 6.3mm Dia 1,000 Hours 8 ~ 12.5mm Dia 2,000 Hours | Capacitance Change | Within \pm 25% of initial measured value | | | | | | | | | | |
| | Tan δ | Less than 200% of the specified value | | | | | | | | | | |
| | Leakage Current | Less than the specified maximum value | | | | | | | | | | |

STANDARD PRODUCT AND CASE SIZE D ϕ xL (mm)

| Cap (μ F) | Code | Working Voltage (Vdc) | | | | | | | | |
|-------------------|------|-----------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| | | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 80 | 100 |
| 2.2 | 2R2 | - | - | - | - | - | - | - | - | 6.3x6.3 |
| 3.3 | 3R3 | - | - | - | - | - | - | - | - | 6.3x6.3 |
| 4.7 | 4R7 | - | - | - | - | 4x6.3 | 4x6.3 | 5x6.3 | 6.3x6.3 | 6.3x6.3 |
| 10 | 100 | - | - | - | 4x6.3 | 5x6.3 | 6.3x6.3 | 6.3x6.3 | 6.3x8 | 6.3x8 |
| 15 | 150 | - | - | 4x6.3 | 5x6.3 | 5x6.3 | - | - | - | - |
| 22 | 220 | - | 4x6.3 | 5x6.3 | 5x6.3 | 5x6.3 | 6.3x6.3 | 6.3x8 | 8x10.5 | 8x10.5 |
| 27 | 270 | 4x6.3 | - | - | - | - | - | - | - | - |
| 33 | 330 | - | 5x6.3 | - | 6.3x6.3 | 6.3x6.3 | 6.3x8 | 8x10.5 | 8x10.5 | 10x10.5 |
| 47 | 470 | 5x6.3 | - | 6.3x6.3 | 6.3x6.3 | 6.3x6.3 | 6.3x8 | 8x10.5 | 10x10.5 | 12.5x14 |
| 56 | 560 | 5x6.3 | - | - | 6.3x6.3 | - | - | - | - | - |
| 68 | 680 | - | 6.3x6.3 | 6.3x6.3 | 6.3x6.3 | 6.3x8 | - | - | 12.5x14 | 12.5x14 |
| 100 | 101 | 6.3x6.3 | - | 6.3x6.3 | 6.3x8 | 8x10.5 | 8x10.5 | 10x10.5 | 12.5x14 | 16x17 |
| 150 | 151 | 6.3x6.3 | 6.3x6.3 | 6.3x8 | 8x10.5 | 8x10.5 | - | - | 12.5x14 | 16x17 |
| 220 | 221 | 6.3x6.3 | 6.3x8 | 6.3x8 | 8x10.5 | 8x10.5 | 10x10.5 | 12.5x14 | - | - |
| 330 | 331 | 6.3x8 | 8x10.5 | 8x10.5 | 8x10.5 | 10x10.5 | 12.5x14 | - | 16x17 | - |
| 470 | 471 | 8x10.5 | 8x10.5 | 8x10.5 | 10x10.5 | 12.5x14 | - | 16x17 | - | - |
| 680 | 681 | 8x10.5 | - | 10x10.5 | - | 12.5x14 | - | - | - | - |
| 1000 | 102 | 8x10.5 | 10x10.5 | - | 12.5x14 | 16x17 | 16x17 | - | - | - |
| 1500 | 152 | 10x10.5 | - | 12.5x14 | - | 16x17 | - | - | - | - |
| 2200 | 222 | - | 12.5x14 | - | 16x17 | - | - | - | - | - |
| 3300 | 332 | 12.5x14 | - | 16x17 | - | - | - | - | - | - |
| 4700 | 472 | - | 16x17 | - | - | - | - | - | - | - |
| 6800 | 682 | 16x17 | - | - | - | - | - | - | - | - |



Surface Mount Aluminum Electrolytic Capacitors NACY Series

STANDARD VALUES, CASE SIZES AND SPECIFICATIONS

| NIC Part Number | Cap. (μF) | W.V. (Vdc) | Dissipation Factor (Tan δ) | Max. Ripple Current (mA) +105°C/100kHz | Max. Z (Ω) +20°C/100kHz | Load Life Hours @ +105°C |
|--------------------------|-----------|------------|----------------------------|--|-------------------------|--------------------------|
| NACY270M6.3V4X6.3TR13F | 27 | 6.3 | 0.24 | 90 | 1.45 | 1,000 |
| NACY470M6.3V5X6.3TR13F | 47 | | 0.24 | 170 | 0.7 | 1,000 |
| NACY560M6.3V5X6.3TR13F | 56 | | 0.24 | 170 | 0.7 | 1,000 |
| NACY101M6.3V6.3X6.3TR13F | 100 | | 0.24 | 250 | 0.39 | 1,000 |
| NACY151M6.3V6.3X6.3TR13F | 150 | | 0.24 | 250 | 0.39 | 1,000 |
| NACY221M6.3V6.3X6.3TR13F | 220 | | 0.24 | 250 | 0.39 | 1,000 |
| NACY331M6.3V6.3X8TR13F | 330 | | 0.24 | 300 | 0.3 | 1,000 |
| NACY471M6.3V8X10.5TR13F | 470 | | 0.28 | 600 | 0.15 | 2,000 |
| NACY681M6.3V8X10.5TR13F | 680 | | 0.28 | 600 | 0.15 | 2,000 |
| NACY102M6.3V8X10.5TR13F | 1000 | | 0.28 | 600 | 0.15 | 2,000 |
| NACY152M6.3V10X10.5TR13F | 1500 | | 0.28 | 850 | 0.08 | 2,000 |
| NACY332M6.3V12.5X14TR15F | 3300 | | 0.32 | 1150 | 0.058 | 2,000 |
| NACY682M6.3V16X17TR15F | 6800 | | 0.36 | 1800 | 0.035 | 2,000 |
| NACY220M10V4X6.3TR13F | 22 | 10 | 0.20 | 90 | 1.45 | 1,000 |
| NACY330M10V5X6.3TR13F | 33 | | 0.20 | 170 | 0.7 | 1,000 |
| NACY680M10V6.3X6.3TR13F | 68 | | 0.20 | 250 | 0.39 | 1,000 |
| NACY151M10V6.3X6.3TR13F | 150 | | 0.20 | 250 | 0.39 | 1,000 |
| NACY221M10V6.3X8TR13F | 220 | | 0.20 | 300 | 0.3 | 1,000 |
| NACY331M10V8X10.5TR13F | 330 | | 0.24 | 600 | 0.15 | 2,000 |
| NACY471M10V8X10.5TR13F | 470 | | 0.24 | 600 | 0.15 | 2,000 |
| NACY102M10V10X10.5TR13F | 1000 | | 0.24 | 850 | 0.08 | 2,000 |
| NACY222M10V12.5X14TR15F | 2200 | | 0.26 | 1150 | 0.058 | 2,000 |
| NACY472M10V16X17TR15F | 4700 | | 0.30 | 1800 | 0.035 | 2,000 |
| NACY150M16V4X6.3TR13F | 15 | 16 | 0.16 | 90 | 1.45 | 1,000 |
| NACY220M16V5X6.3TR13F | 22 | | 0.16 | 170 | 0.7 | 1,000 |
| NACY470M16V6.3X6.3TR13F | 47 | | 0.16 | 250 | 0.39 | 1,000 |
| NACY680M16V6.3X6.3TR13F | 68 | | 0.16 | 250 | 0.39 | 1,000 |
| NACY101M16V6.3X6.3TR13F | 100 | | 0.16 | 250 | 0.39 | 1,000 |
| NACY151M16V6.3X8TR13F | 150 | | 0.16 | 300 | 0.3 | 1,000 |
| NACY221M16V6.3X8TR13F | 220 | | 0.16 | 300 | 0.3 | 1,000 |
| NACY331M16V8X10.5TR13F | 330 | | 0.20 | 600 | 0.15 | 2,000 |
| NACY471M16V8X10.5TR13F | 470 | | 0.20 | 600 | 0.15 | 2,000 |
| NACY681M16V10X10.5TR13F | 680 | | 0.20 | 850 | 0.08 | 2,000 |
| NACY152M16V12.5X14TR15F | 1500 | | 0.20 | 1150 | 0.058 | 2,000 |
| NACY332M16V16X17TR15F | 3300 | | 0.24 | 1800 | 0.035 | 2,000 |
| NACY100M25V4X6.3TR13F | 10 | | 25 | 0.14 | 90 | 1.45 |
| NACY150M25V5X6.3TR13F | 15 | 0.14 | | 170 | 0.7 | 1,000 |
| NACY220M25V5X6.3TR13F | 22 | 0.14 | | 170 | 0.7 | 1,000 |
| NACY330M25V6.3X6.3TR13F | 33 | 0.14 | | 250 | 0.39 | 1,000 |
| NACY470M25V6.3X6.3TR13F | 47 | 0.14 | | 250 | 0.39 | 1,000 |
| NACY560M25V6.3X6.3TR13F | 56 | 0.14 | | 250 | 0.39 | 1,000 |
| NACY680M25V6.3X6.3TR13F | 68 | 0.14 | | 250 | 0.39 | 1,000 |
| NACY101M25V6.3X8TR13F | 100 | 0.14 | | 300 | 0.3 | 1,000 |
| NACY151M25V8X10.5TR13F | 150 | 0.16 | | 600 | 0.15 | 2,000 |
| NACY221M25V8X10.5TR13F | 220 | 0.16 | | 600 | 0.15 | 2,000 |
| NACY331M25V8X10.5TR13F | 330 | 0.16 | | 600 | 0.15 | 2,000 |
| NACY471M25V10X10.5TR13F | 470 | 0.16 | | 850 | 0.08 | 2,000 |
| NACY102M25V12.5X14TR15F | 1000 | 0.16 | | 1150 | 0.058 | 2,000 |
| NACY222M25V16X17TR15F | 2200 | 0.18 | | 1800 | 0.035 | 2,000 |
| NACY4R7M35V4X6.3TR13F | 4.7 | 35 | 0.12 | 90 | 1.45 | 1,000 |
| NACY100M35V5X6.3TR13F | 10 | | 0.12 | 170 | 0.7 | 1,000 |
| NACY150M35V5X6.3TR13F | 15 | | 0.12 | 170 | 0.7 | 1,000 |
| NACY220M35V5X6.3TR13F | 22 | | 0.12 | 170 | 0.7 | 1,000 |
| NACY330M35V6.3X6.3TR13F | 33 | | 0.12 | 250 | 0.39 | 1,000 |
| NACY470M35V6.3X6.3TR13F | 47 | | 0.12 | 250 | 0.39 | 1,000 |
| NACY680M35V6.3X8TR13F | 68 | | 0.12 | 300 | 0.30 | 1,000 |
| NACY101M35V8X10.5TR13F | 100 | | 0.14 | 600 | 0.15 | 2,000 |
| NACY151M35V8X10.5TR13F | 150 | | 0.14 | 600 | 0.15 | 2,000 |
| NACY221M35V8X10.5TR13F | 220 | | 0.14 | 600 | 0.15 | 2,000 |

For Automotive Equipment, see part number system



Surface Mount Aluminum Electrolytic Capacitors NACY Series

STANDARD VALUES, CASE SIZES AND SPECIFICATIONS

| NIC Part Number | Cap. (μF) | W.V. (Vdc) | Dissipation Factor (Tan δ) | Max. Ripple Current (mA) +105°C/100kHz | Max. Z (Ω) +20°C/100kHz | Load Life Hours @ +105°C |
|--------------------------|-----------|------------|----------------------------|--|-------------------------|--------------------------|
| NACY331M35V10X10.5TR13F | 330 | 35 | 0.14 | 850 | 0.08 | 2,000 |
| NACY471M35V12.5X14TR15F | 470 | | 0.14 | 1150 | 0.058 | 2,000 |
| NACY681M35V12.5X14TR15F | 680 | | 0.14 | 1150 | 0.058 | 2,000 |
| NACY102M35V16X17TR15F | 1000 | | 0.14 | 1800 | 0.035 | 2,000 |
| NACY152M35V16X17TR15F | 1500 | | 0.14 | 1800 | 0.035 | 2,000 |
| NACY4R7M50V4X6.3TR13F | 4.7 | 50 | 0.12 | 64 | 2.55 | 1,000 |
| NACY100M50V6.3X6.3TR13F | 10 | | 0.12 | 215 | 0.52 | 1,000 |
| NACY220M50V6.3X6.3TR13F | 22 | | 0.12 | 215 | 0.52 | 1,000 |
| NACY330M50V6.3X8TR13F | 33 | | 0.12 | 243 | 0.44 | 1,000 |
| NACY470M50V6.3X8TR13F | 47 | | 0.12 | 243 | 0.44 | 1,000 |
| NACY101M50V8X10.5TR13F | 100 | | 0.14 | 400 | 0.22 | 2,000 |
| NACY221M50V10X10.5TR13F | 220 | | 0.14 | 585 | 0.13 | 2,000 |
| NACY331M50V12.5X14TR15F | 330 | | 0.14 | 800 | 0.10 | 2,000 |
| NACY102M50V16X17TR15F | 1000 | | 0.14 | 1610 | 0.065 | 2,000 |
| NACY4R7M63V5X6.3TR13F | 4.7 | | 63 | 0.10 | 55 | 2.00 |
| NACY100M63V6.3X6.3TR13F | 10 | 0.10 | | 90 | 1.00 | 1,000 |
| NACY220M63V6.3X8TR13F | 22 | 0.10 | | 135 | 0.80 | 1,000 |
| NACY330M63V8X10.5TR13F | 33 | 0.12 | | 280 | 0.35 | 2,000 |
| NACY470M63V8X10.5TR13F | 47 | 0.12 | | 280 | 0.35 | 2,000 |
| NACY101M63V10X10.5TR13F | 100 | 0.12 | | 480 | 0.20 | 2,000 |
| NACY221M63V12.5X14TR15F | 220 | 0.12 | | 800 | 0.14 | 2,000 |
| NACY471M63V16X17TR15F | 470 | 0.12 | | 1410 | 0.065 | 2,000 |
| NACY4R7M80V6.3X6.3TR13F | 4.7 | 80 | 0.08 | 45 | 2.40 | 1,000 |
| NACY100M80V6.3X8TR13F | 10 | | 0.08 | 65 | 2.00 | 1,000 |
| NACY220M80V8X10.5TR13F | 22 | | 0.10 | 140 | 0.90 | 2,000 |
| NACY330M80V8X10.5TR13F | 33 | | 0.10 | 140 | 0.90 | 2,000 |
| NACY470M80V10X10.5TR13F | 47 | | 0.10 | 220 | 0.50 | 2,000 |
| NACY680M80V12.5X14TR15F | 68 | | 0.10 | 500 | 0.24 | 2,000 |
| NACY101M80V12.5X14TR15F | 100 | | 0.10 | 500 | 0.24 | 2,000 |
| NACY151M80V12.5X14TR15F | 150 | | 0.10 | 500 | 0.24 | 2,000 |
| NACY331M80V16X17TR15F | 330 | | 0.10 | 800 | 0.14 | 2,000 |
| NACY2R2M100V6.3X6.3TR13F | 2.2 | | 100 | 0.07 | 42 | 2.70 |
| NACY3R3M100V6.3X6.3TR13F | 3.3 | 0.07 | | 45 | 2.40 | 1,000 |
| NACY4R7M100V6.3X6.3TR13F | 4.7 | 0.07 | | 45 | 2.40 | 1,000 |
| NACY100M100V6.3X8TR13F | 10 | 0.07 | | 65 | 2.00 | 1,000 |
| NACY220M100V8X10.5TR13F | 22 | 0.08 | | 140 | 0.90 | 2,000 |
| NACY330M100V10X10.5TR13F | 33 | 0.08 | | 220 | 0.50 | 2,000 |
| NACY470M100V12.5X14TR15F | 47 | 0.08 | | 500 | 0.24 | 2,000 |
| NACY680M100V12.5X14TR15F | 68 | 0.08 | | 500 | 0.24 | 2,000 |
| NACY101M100V16X17TR15F | 100 | 0.08 | | 800 | 0.14 | 2,000 |
| NACY151M100V16X17TR15F | 150 | 0.08 | | 800 | 0.14 | 2,000 |

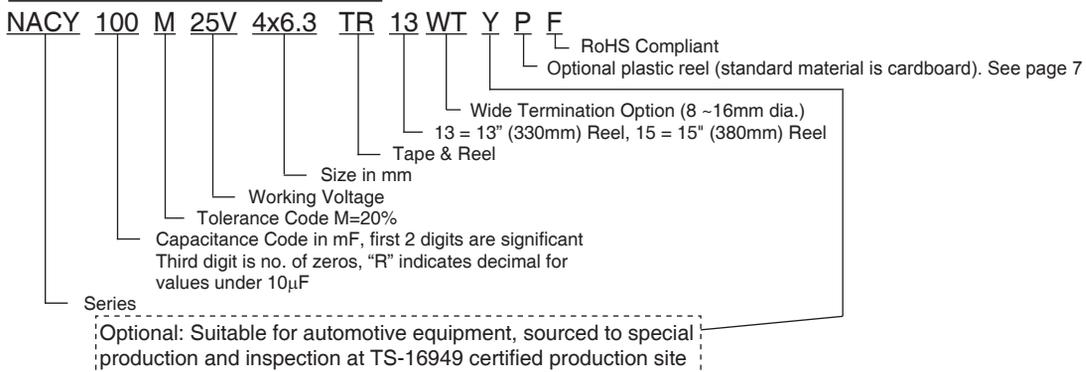
RIPPLE CURRENT

For Automotive Equipment, see part number system

FREQUENCY CORRECTION FACTOR

| Frequency | ≤ 120Hz | ≤ 1KHz | ≤ 10KHz | ≤ 100KHz |
|-------------------|---------|--------|---------|----------|
| Correction Factor | 0.75 | 0.85 | 0.95 | 1.00 |

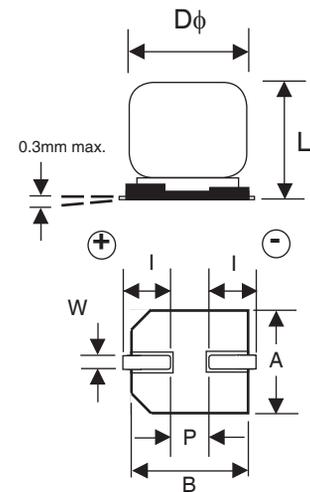
PART NUMBER SYSTEM



Surface Mount Aluminum Electrolytic Capacitors NACY Series

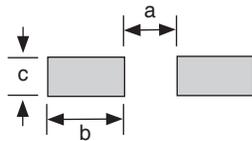
DIMENSIONS (mm)

| Case Size | D ϕ \pm 0.5 | L max. | A \pm 0.2 | B \pm 0.2 | I \pm 0.2 | W | P \pm 0.2 |
|-----------|--------------------|--------|-------------|-------------|-------------|-----------|-------------|
| 4 x 6.3 | 4.0 | 6.3 | 4.3 | 4.3 | 1.8 | 0.5 ~ 0.8 | 1.0 |
| 5 x 6.3 | 5.0 | 6.3 | 5.3 | 5.3 | 2.2 | 0.5 ~ 0.8 | 1.5 |
| 6.3 x 6.3 | 6.3 | 6.3 | 6.6 | 6.6 | 2.5 | 0.5 ~ 0.8 | 2.2 |
| 6.3 x 8 | 6.3 | 8.0 | 6.6 | 6.6 | 2.5 | 0.5 ~ 0.8 | 2.2 |
| 8 X 10.5 | 8.0 | 10.5 | 8.3 | 8.3 | 2.9 | 0.7 ~ 1.1 | 3.2 |
| 10 x 10.5 | 10.0 | 10.5 | 10.3 | 10.3 | 3.2 | 0.7 ~ 1.4 | 4.6 |
| 12.5 x 14 | 12.5 | 14.0 | 12.8 | 12.8 | 4.5 | 1.0 ~ 1.4 | 4.6 |
| 16x17 | 16.0 | 17 | 16.3 | 16.3 | 5.0 | 1.7 ~ 2.1 | 7.0 |



RECOMMENDED LAND PATTERN DIMENSIONS (mm)

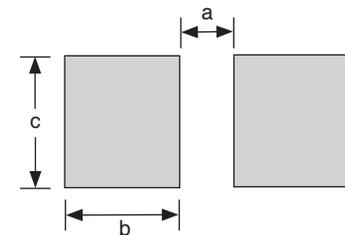
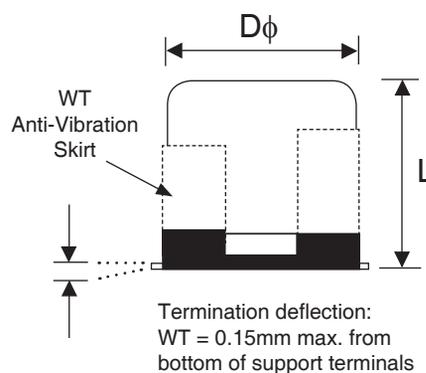
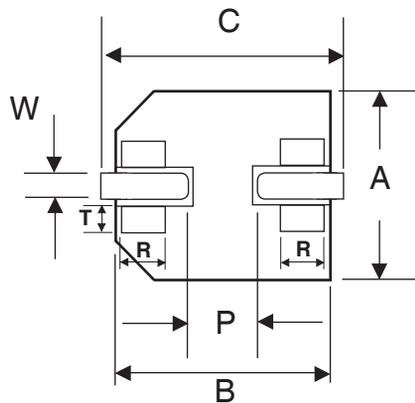
| Case Size | a | b | c |
|------------|-----|-----|-----|
| 4 ϕ | 1.0 | 2.6 | 1.8 |
| 5 ϕ | 1.4 | 3.0 | 1.8 |
| 6.3 ϕ | 1.8 | 3.6 | 1.8 |
| 8 ϕ | 2.8 | 4.1 | 2.1 |
| 10 ϕ | 4.3 | 4.4 | 2.5 |



WT (WIDE TERMINATIONS) COMPONENT DIM. (mm)

| Case Size | D ϕ \pm 0.5 | L max. | A, B \pm 0.2 | C \pm 0.2 | P | W | R | T |
|-----------|--------------------|--------|----------------|-------------|-------|-----------|-------|-------|
| 8x10.5 | 8.0 | 11.0 | 8.3 | 9.0 | (3.2) | 0.7 ~ 1.0 | (0.7) | (1.3) |
| 10x10.5 | 10.0 | 11.0 | 10.3 | 11.0 | (4.6) | 1.0 ~ 1.4 | (0.7) | (1.3) |
| 12.5x14 | 12.5 | 14.5 | 13.5 | 14.2 | (4.6) | 1.0 ~ 1.4 | (2.2) | (2.4) |
| 16x17 | 16.0 | 17.5 | 17.0 | 18.0 | (7.0) | 1.7 ~ 2.1 | (3.0) | (2.0) |

(Reference dimensions)



WT (WIDE TERMINATIONS) LAND PATTERN DIM. (mm)

| Case Size | a | b | c |
|-----------|-----|-----|-----|
| 8x10.5 | 2.5 | 4.5 | 4.7 |
| 10x10.5 | 3.8 | 4.8 | 4.7 |
| 12.5x14 | 3.8 | 6.1 | 6.9 |
| 16x17 | 5.0 | 8.0 | 9.5 |

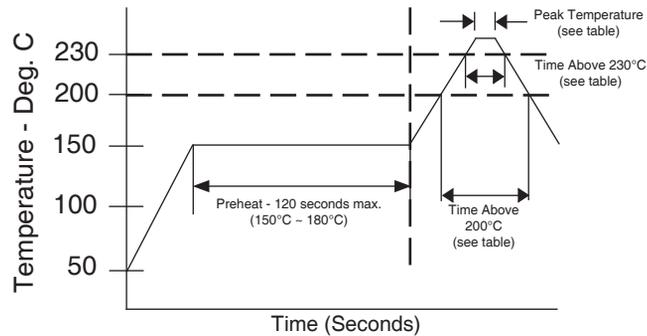
| WT (Wide Terminations) Anti-Vibration Test | |
|--|---|
| Test Method | Direction: X, Y, Z axis Frequency & Duration: 5 to 2000Hz reciprocation for 20 minutes, 2 hours each direction Peak to Peak Amplitude: 5mm Peak Acceleration: 30G Sweep Type: Log |
| Δ Capacitance | Within \pm 10% of initial value |
| Tangent of Loss | \leq Specified value |
| Leakage Current | \leq Specified value |

Review & Compare Reflow Soldering Heat Limits
V-chip SMT Aluminum Electrolytic Capacitors
www.niccomp.com/RSL



REFLOW TEMPERATURES AND DURATION

| Voltage | Diameter | Time above 200°C | Time above 217°C | Time above 230°C | Peak Temperature |
|------------|--------------------|------------------|------------------|------------------|------------------|
| 6.3 ~ 63V | 4 ~ 6.3mm ϕ | 70 sec. max. | 60 sec. max. | 40 sec. max. | 250°C |
| | 8mm ϕ | 60 sec. max. | 50 sec. max. | 30 sec. max. | 245°C |
| | 10mm ~ 12mm ϕ | 50 sec. max. | 40 sec. max. | 20 sec. max. | 240°C |
| | 16mm ϕ | 50 sec. max. | 30 sec. max. | 15 sec. max. | 235°C |
| 80V ~ 100V | 6.3mm ϕ | 60 sec. max. | 50 sec. max. | 40 sec. max. | 250°C |
| | 8mm ϕ | 60 sec. max. | 40 sec. max. | 30 sec. max. | 240°C |
| | 10mm ϕ | 50 sec. max. | 30 sec. max. | 20 sec. max. | 240°C |
| | 12mm ϕ | 50 sec. max. | 30 sec. max. | 20 sec. max. | 235°C |
| | 16mm ϕ | 45 sec. max. | 20 sec. max. | 10 sec. max. | 235°C |



PRECAUTIONS

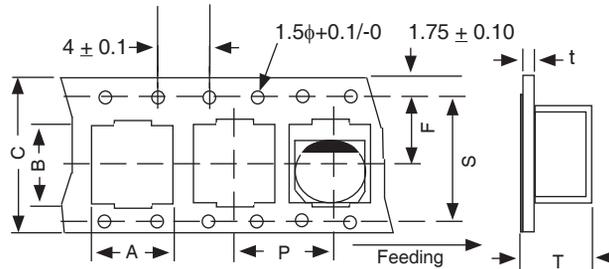
Please review the notes on correct use, safety and precautions found at www.niccomp.com/precautions. If in doubt or uncertainty, please review your specific application - process details with NIC's technical support personnel: tpmg@niccomp.com



Surface Mount Aluminum Electrolytic Capacitors NACY Series

CARRIER TAPE DIMENSIONS & REEL QTY

| Case Size | A ±0.5 | B ±0.5 | C ±0.3 | F ±0.1 | P ±0.1 | S ±0.1 | T ±0.2 | t ±0.1 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|
| 4x6.3 | 4.7 | 4.7 | 12.0 | 5.5 | 8.0 | - | 6.4 | 0.6 |
| 5x6.3 | 5.7 | 5.7 | 12.0 | 5.5 | 12.0 | - | 6.4 | 0.6 |
| 6.3x6.3 | 7.0 | 7.0 | 16.0 | 7.5 | 12.0 | - | 6.5 | 0.6 |
| 6.3x8 | 7.0 | 7.0 | 16.0 | 7.5 | 12.0 | - | 8.2 | 0.6 |
| 8x10.5 | 8.7 | 8.7 | 24.0 | 11.5 | 16.0 | - | 11.1 | 0.6 |
| 10x10.5 | 10.7 | 10.7 | 24.0 | 11.5 | 16.0 | - | 11.2 | 0.6 |
| 12.5x14 | 13.2 | 13.2 | 32.0 | 14.3 | 24.0 | 28.4 | 14.3 | 0.6 |
| 16x17 | 17.5 | 17.5 | 44.0 | 20.2 | 28 | 40.4 | 17.3 | 0.6 |

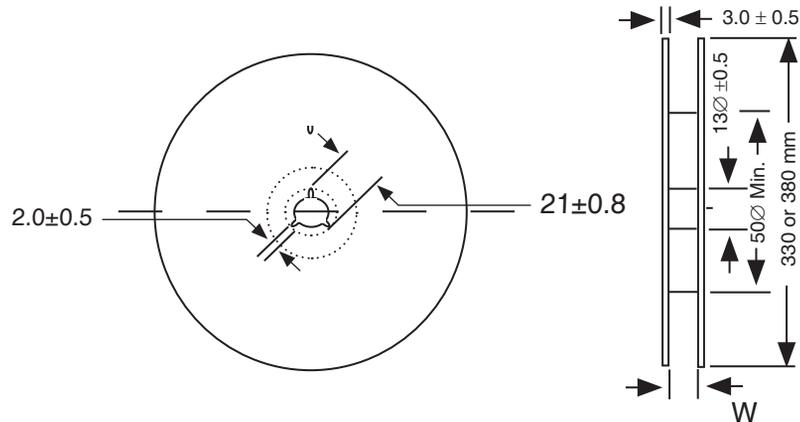


TR13 330mm (13") CARDBOARD REEL

TR15 380mm (15") CARDBOARD REEL

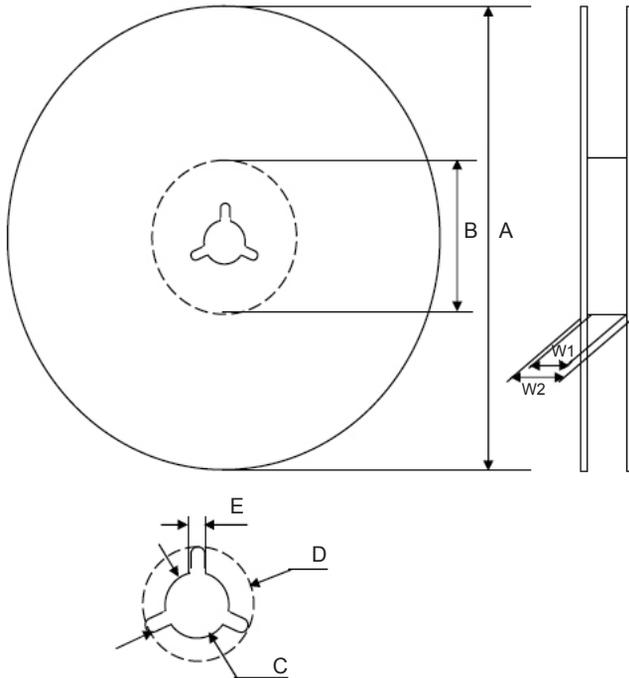
(See page 6 for plastic reel dimensions)

| Case Size | W ±1.0 | Quantity | |
|-----------|--------|--------------|--------------|
| | | TR13 (330mm) | TR15 (380mm) |
| 4x6.3 | 14 | 1,200 | 2,000 |
| 5x6.3 | 14 | 800 | 1,000 |
| 6.3x6.3 | 18 | 800 | 1,000 |
| 6.3x8 | 18 | 500 | 900 |
| 8x10.5 | 26 | 300 | 500 |
| 10x10.5 | 26 | 300 | 500 |
| 12.5x14 | 34 | - | 250 |
| 16x17 | 46 | - | 200 |



Surface Mount Aluminum Electrolytic Capacitors NACY Series

Optional V-Chip 13" (330mm) Plastic Reels (TR13PF suffix)



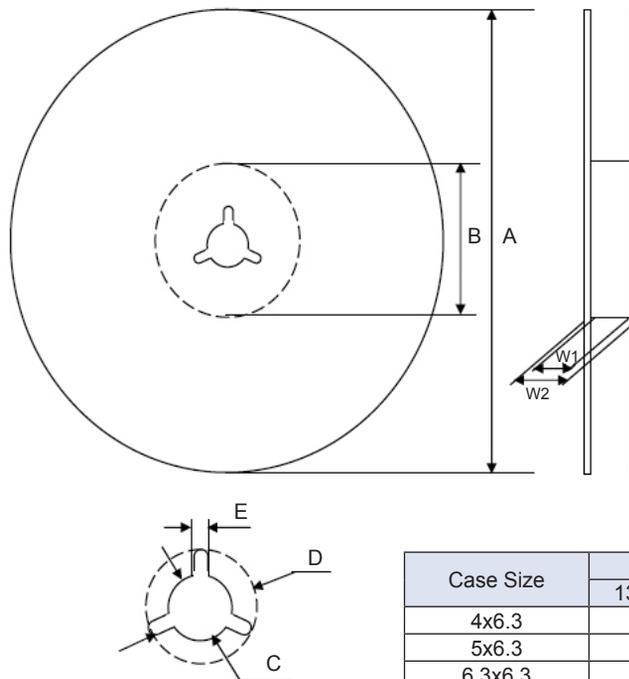
Dimensions (mm)

| Case Size | Tape Width | W1 | W2 |
|-----------------|------------|-------------|-------------|
| 4x6.3, 5x6.3 | 12.0 | 12.4 ~ 14.4 | 15.5 ~ 20.0 |
| 6.3x6.3, 6.3x8 | 16.0 | 16.4 ~ 18.4 | 19.5 ~ 24.0 |
| 8x10.5, 10x10.5 | 24.0 | 24.4 ~ 26.4 | 27.5 ~ 32.0 |

| Case Size | Tape Width | A | B | C | D | E |
|-----------------|------------|-------------------------|--------------------|------------------------|------------------------|------------------|
| 4x6.3, 5x6.3 | 12.0 | $\phi 330$ ± 2.0 | $\phi 50 \sim 105$ | $\phi 13$ ± 0.5 | $\phi 21$ ± 1.0 | 2.0 ± 0.5 |
| 6.3x6.3, 6.3x8 | 16.0 | | | | | |
| 8x10.5, 10x10.5 | 24.0 | | | | | |

| Color |
|---------------|
| Black or Blue |

Optional V-Chip 15" (380mm) Plastic Reels (TR15PF suffix)



Dimensions (mm)

| Case Size | Tape Width | W1 | W2 |
|-----------------|------------|-------------|-------------|
| 4x6.3, 5x6.3 | 12.0 | 12.5 ~ 14.0 | 15.5 ~ 20.0 |
| 6.3x6.3, 6.3x8 | 16.0 | 16.5 ~ 18.0 | 19.5 ~ 24.0 |
| 8x10.5, 10x10.5 | 24.0 | 24.5 ~ 26.0 | 27.5 ~ 32.0 |
| 12.5x14 | 32.0 | 33.0 ~ 34.0 | 36.5 ~ 38.5 |
| 16x17 | 44.0 | 45.0 ~ 46.0 | 48.5 ~ 50.5 |

| Case Size | Tape Width | A | B | C | D | E |
|-----------------|------------|-----------------------|--------------------|------------------------|------------------------|------------------|
| 4x6.3, 5x6.3 | 12.0 | $\phi 380$ ± 2 | $\phi 80 \sim 105$ | $\phi 13$ ± 0.5 | $\phi 21$ ± 1.0 | 2.0 ± 0.5 |
| 6.3x6.3, 6.3x8 | 16.0 | | | | | |
| 8x10.5, 10x10.5 | 24.0 | | | | | |
| 12.5x14 | 32.0 | | | | | |
| 16x17 | 44.0 | | | | | |

| Color |
|---------------|
| Black or Blue |

| Case Size | Quantity Per Reel | |
|-----------|-------------------|------------------|
| | 13" (330mm) Reel | 15" (380mm) Reel |
| 4x6.3 | 1,200 pcs | 2,000 pcs |
| 5x6.3 | 800 pcs | 1,000 pcs |
| 6.3x6.3 | 800 pcs | 1,000 pcs |
| 6.3x8 | 500 pcs | 900 pcs |
| 8x10.5 | 300 pcs | 500 pcs |
| 10x10.5 | 300 pcs | 500 pcs |
| 12.5x14 | N/A | 250 pcs |
| 16x17 | N/A | 200 pcs |

