

Miniature Aluminum Electrolytic Capacitors

NRSJ Series

ULTRA LOW IMPEDANCE AT HIGH FREQUENCY, RADIAL LEADS

FEATURES

- VERY LOW IMPEDANCE
- LONG LIFE AT 105°C (2000 hrs.)
- HIGH STABILITY AT LOW TEMPERATURE

**RoHS
Compliant**
includes all homogeneous materials

*See Part Number System for Details



CHARACTERISTICS

| | | | | | | | |
|---|--|--|------|------|------|------|------|
| Rated Voltage Range | 6.3 ~ 50Vdc | | | | | | |
| Capacitance Range | 100 ~ 2,700 μ F | | | | | | |
| Operating Temperature Range | -25° ~ +105°C | | | | | | |
| Capacitance Tolerance | \pm 20% (M) | | | | | | |
| Maximum Leakage Current After 2 Minutes at 20°C | 0.01CV or 3 μ A whichever is greater | | | | | | |
| Max. Tan δ at 120Hz/20°C | W.V. (Vdc) | 6.3 | 10 | 16 | 25 | 35 | 50 |
| | S.V. (Vdc) | 8 | 13 | 20 | 32 | 44 | 63 |
| | C < 1,500 μ F | 0.22 | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 |
| | C = 2,200 μ F ~ 2,700 μ F | 0.24 | 0.21 | 0.18 | 0.16 | - | - |
| Low Temperature Stability Impedance Ratio @ 120Hz | Z-25°C/Z+20°C | 3 | 3 | 3 | 3 | 3 | 3 |
| Load Life Test at Rated W.V. 105°C 2,000 Hrs. | Capacitance Change | Within \pm 25% of initial measured value | | | | | |
| | Tan δ | Less than 200% of specified value | | | | | |
| | Leakage Current | Less than specified value | | | | | |

MAXIMUM IMPEDANCE (Ω AT 100KHz/20°C)

| Cap (μ F) | Working Voltage (Vdc) | | | | | |
|----------------|-----------------------|-------|-------|-------|-------|-------|
| | 6.3 | 10 | 16 | 25 | 35 | 50 |
| 100 | - | - | - | - | - | 0.046 |
| 121 | - | - | - | - | - | 0.049 |
| 150 | - | - | - | - | 0.030 | 0.036 |
| 180 | - | - | - | - | - | 0.039 |
| 220 | - | - | - | 0.030 | 0.032 | 0.023 |
| | | | | | 0.025 | 0.026 |
| 270 | - | - | - | - | 0.025 | |
| | | | | | 0.029 | |
| | | | | | 0.021 | |
| 330 | - | - | 0.030 | 0.032 | 0.018 | |
| | | | | 0.025 | 0.027 | |
| | | | | - | 0.020 | |
| 390 | - | - | - | 0.020 | - | |
| | | | | 0.022 | | |
| 470 | - | 0.030 | 0.032 | 0.018 | - | |
| | | | 0.025 | 0.027 | | |
| | | | - | 0.020 | | |
| 560 | 0.030 | - | - | - | 0.018 | - |
| 680 | - | 0.032 | 0.016 | 0.020 | - | - |
| | | 0.025 | 0.025 | 0.022 | | |
| | | - | 0.018 | 0.016 | | |
| 1000 | 0.030 | 0.016 | 0.016 | 0.018 | - | - |
| | 0.025 | 0.025 | 0.018 | | | |
| | - | 0.018 | 0.013 | | | |
| 1500 | 0.016 | 0.016 | 0.013 | - | - | - |
| | 0.025 | 0.018 | | | | |
| | 0.018 | 0.013 | | | | |
| 2200 | 0.016 | 0.013 | - | - | - | - |
| | 0.018 | | | | | |
| | 0.013 | | | | | |
| 2700 | 0.013 | - | - | - | - | - |

MAXIMUM RIPPLE CURRENT (mA AT 100KHz/105°C)

| Cap (μ F) | Working Voltage (Vdc) | | | | | |
|----------------|-----------------------|------|------|------|------|------|
| | 6.3 | 10 | 16 | 25 | 35 | 50 |
| 100 | - | - | - | - | - | 920 |
| 121 | - | - | - | - | - | 890 |
| 150 | - | - | - | - | 1110 | 1230 |
| 180 | - | - | - | - | - | 1180 |
| 220 | - | - | - | 1110 | 1080 | 1680 |
| | | | | | 1440 | 1720 |
| 270 | - | - | - | - | - | 1610 |
| | | | | | 1630 | |
| | | | | | 1980 | |
| 330 | - | - | 1140 | 1080 | 1820 | 1800 |
| | | | | 140 | 1390 | |
| | | | | - | 1920 | |
| 390 | - | - | - | - | 1720 | - |
| | | | | 1830 | | |
| 470 | - | 1140 | 1140 | 1820 | 2180 | - |
| | | | 1540 | 1390 | | |
| | | | - | 1920 | | |
| 560 | 1140 | - | - | - | 2060 | - |
| 680 | - | 1140 | 1870 | 1720 | - | - |
| | | 1540 | 1540 | 1830 | | |
| | | - | 2000 | 2180 | | |
| 1000 | - | 1140 | 1870 | 1870 | 2060 | - |
| | | 1540 | 1540 | 2000 | | |
| | | - | 2000 | 2550 | | |
| 1500 | - | 1870 | 1870 | 2550 | - | - |
| | | 1540 | 2000 | | | |
| | | 2000 | 2550 | | | |
| 2200 | - | 1870 | 2550 | - | - | - |
| | | 2000 | | | | |
| | | 2550 | | | | |
| 2700 | 2550 | - | - | - | - | - |

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
If in doubt or uncertainty, please review your specific application - process details with NIC's technical support personnel: tpmg@niccomp.com



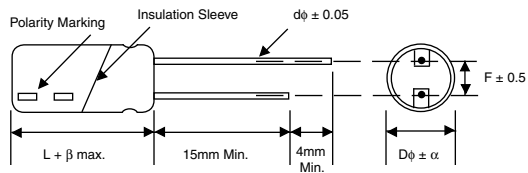
STANDARD PRODUCT AND CASE SIZE TABLE DΦ x L (mm)

| Cap (μF) | Code | Working Voltage (Vdc) | | | | | |
|----------|------|-----------------------|---------|---------|---------|---------|---------|
| | | 6.3 | 10 | 16 | 25 | 35 | 50 |
| 100 | 101 | - | - | - | - | - | 8x11.5 |
| 121 | 121 | - | - | - | - | - | 8x11.5 |
| 150 | 151 | - | - | - | - | 8x11.5 | 10x12.5 |
| 180 | 181 | - | - | - | - | - | 10x12.5 |
| 220 | 22 | - | - | - | 8x11.5 | 8x11.5 | 8x20 |
| | | | | | | 10x12.5 | 10x16 |
| 270 | 271 | - | - | - | - | - | 8x20 |
| | | | | | | - | 10x16 |
| | | | | | | - | 10x20 |
| 330 | 331 | - | - | 8x11.5 | 8x11.5 | 8x20 | 10x20 |
| | | | | | 10x12.5 | 10x12.5 | |
| | | | | | - | 10x16 | |
| 390 | 291 | - | - | - | - | 8x20 | - |
| | | | | | | 10x16 | - |
| 470 | 471 | - | 8x11.5 | 8x11.5 | 8x20 | 10x20 | - |
| | | | | 10x12.5 | 10x12.5 | | |
| | | | | - | 10x16 | | |
| 560 | 561 | 8x11.5 | - | - | - | 10x20 | - |
| 680 | 681 | - | 8x11.5 | 8x20 | 8x20 | - | - |
| | | | 10x12.5 | 10x12.5 | 10x16 | | |
| | | | - | 10x16 | 10x20 | | |
| 1000 | 102 | 8x11.5 | 8x20 | 8x20 | 10x20 | - | - |
| | | 10x12.5 | 10x12.5 | 10x16 | | | |
| | | - | 10x16 | 10x20 | | | |
| 1500 | 152 | 8x20 | 8x20 | 10x20 | - | - | - |
| | | 10x12.5 | 10x16 | | | | |
| | | 10x16 | 10x20 | | | | |
| 2200 | 222 | 8x20 | 10x20 | - | - | - | - |
| | | 10x16 | | | | | |
| | | 10x20 | | | | | |
| 2700 | 272 | 10x20 | - | - | - | - | - |

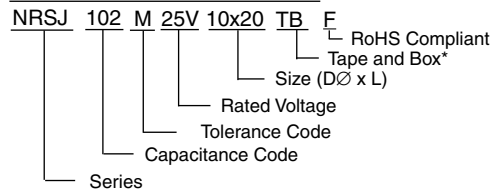
DIAMETER AND LEADSPACE (mm)

| | | |
|------------------|-----|-----|
| Case Dia. (Dφ) | 8 | 10 |
| Lead Dia. (dφ) | 0.6 | 0.6 |
| Lead Spacing (F) | 3.5 | 5.0 |
| Dim. α | 0.5 | 0.5 |

β = L ≤ 16mm = 1.5mm, L ≥ 20mm = 2.0mm



PART NUMBER SYSTEM



*see tape specification for details