

FEATURES

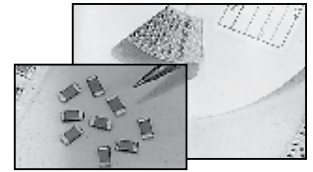
- X7R, X6S, X5R AND Y5V DIELECTRICS
- HIGH CAPACITANCE DENSITY
- ULTRA LOW ESR & ESL
- EXCELLENT MECHANICAL STRENGTH
- NICKEL BARRIER TERMINATIONS
- RoHS COMPLIANT
- SAC SOLDER COMPATIBLE*

*Expanded Value Range
Up to 220µF*

**RoHS
Compliant**

Includes all homogeneous materials

*See Part Number System for Details



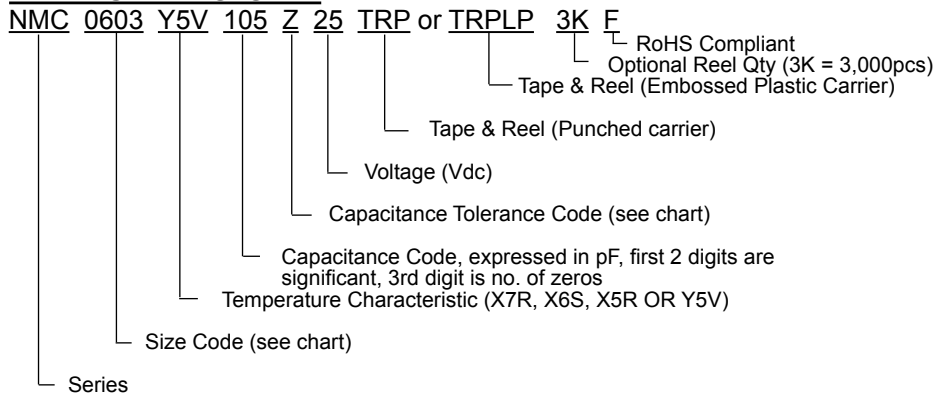
| Temperature Coefficient | X7R | X6S | X5R | Y5V |
|---------------------------------|---|-------------------|---|-------------------|
| Capacitance Range | 1.0µF ~ 47µF | 1.0µF ~ 100µF | 1.0µF ~ 220µF | 1.0µF ~ 100µF |
| Capacitance Tolerance | 10% (K) & 20% (M) | 10% (K) & 20% (M) | 10% (K) & 20% (M) | +80%/-20% (Z) |
| Operating Temperature Range | -55°C ~ +125°C | -55°C ~ +105°C | -55°C ~ +85°C | -30°C ~ +85°C |
| Temperature Characteristics | ±15% Δ Cap. | ±22% Δ Cap. | ±15% Δ Cap. | +22%, -82% Δ Cap. |
| Rated Voltages | 4Vdc, 6.3Vdc, 16Vdc, 25Vdc, 35Vdc, 50Vdc & 100Vdc | | | |
| Dissipation Factor | See Part Number and Specifications Tables | | | |
| Insulation Resistance | | | | |
| Dielectric Withstanding Voltage | 250% of Rated Voltage for 1 ~ 5 sec., 50mA max. | | 150% of Rated Voltage for 1 ~ 5 sec., 50mA max. | |
| Test Conditions (EIA-198-2E) | C ≤ 10µF 1KHz, 1.0V ±0.2Vrms (ALC on) C > 10µF 120Hz, 0.5V ±0.2Vrms (ALC on) | | 1KHz, 1.0V ±0.1Vrms (ALC on) | |

*Reflow soldering is recommended. Contact NIC regarding the use of other soldering methods.

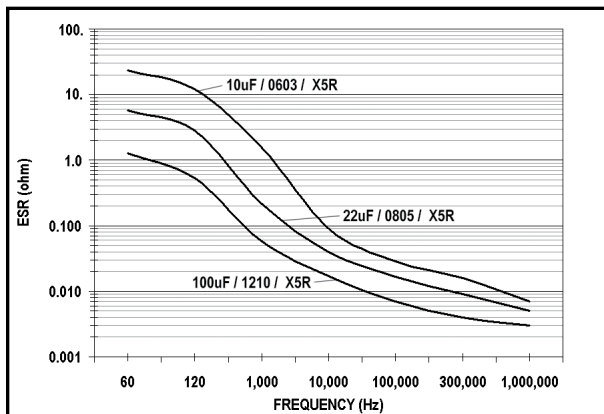
Capacitance value stability over applied VDC is not assured for class II MLCC (X7R, X5R & Y5V) and it is suggested to consider to use NPO MLCCs Ceramic Capacitors, Film Capacitors or Electrolytic Capacitors for applications where stability in capacitance value, over applied VDC, is performance requirement.

For additional information go to: <http://www.niccomp.com/help/VoltageCoefficientofCapacitors-032012-R1.pdf>.

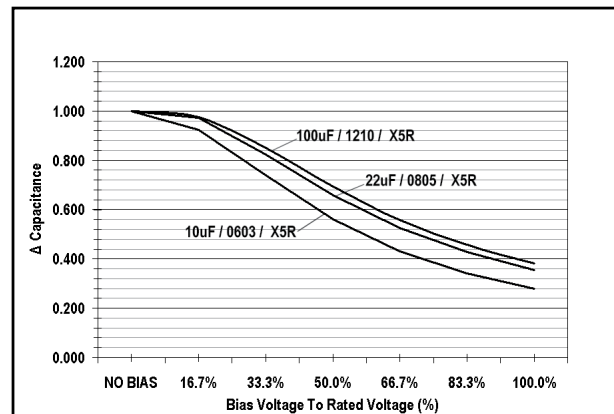
PART NUMBER SYSTEM



Typical ESR versus Frequency



Typical Capacitance versus Bias Voltage



X7R PART NUMBERS AND SPECIFICATIONS

| Part Number | Case Size | Voltage (Vdc) | Cap. | Cap. Tol. | DF (%) | IR (MΩ) | DWV (Vdc) | Max. T (mm) | |
|-------------------------|-----------|---------------|-------|-----------|--------|---------|-----------|-------------|-----|
| NMC0603X7R105K6.3TRPF | 0603 | 6.3 | 1.0μF | ±10% | 10 | 50.0 | 15.75 | 1.0 | |
| NMC0603X7R225K6.3TRPF | | | 2.2μF | ±10% | 10 | 22.7 | 15.75 | 1.0 | |
| NMC0603X7R106M6.3TRPF | | | 10μF | ±20% | 10 | 10 | 15.75 | 1.0 | |
| NMC0603X7R105K10TRPF | | 10 | 1.0μF | ±10% | 10 | 50.0 | 25 | 1.0 | |
| NMC0603X7R225K10TRPF | | | 2.2μF | ±10% | 15 | 22.7 | 25 | 1.0 | |
| NMC0603X7R105K16TRPF | | 16 | 1.0μF | ±10% | 10 | 50.0 | 40 | 1.0 | |
| NMC0603X7R105K25TRPF | | 25 | 1.0μF | ±10% | 10 | 50.0 | 62.5 | 1.0 | |
| NMC0603X7R105K50TRPF | | 50 | 1.0μF | ±10% | 10 | 50.0 | 125 | 1.0 | |
| NMC0805X7R225K6.3TRPLPF | 0805 | 6.3 | 2.2μF | ±10% | 10 | 22.7 | 15.75 | 1.45 | |
| NMC0805X7R335K6.3TRPLPF | | | 3.3μF | ±10% | 10 | 30.3 | 15.75 | 1.45 | |
| NMC0805X7R475K6.3TRPLPF | | | 4.7μF | ±10% | 10 | 10.6 | 15.75 | 1.45 | |
| NMC0805X7R106K6.3TRPLPF | | | 10μF | ±10% | 15 | 5.0 | 15.75 | 1.45 | |
| NMC0805X7R105K10TRPLPF | | 10 | 1.0μF | ±10% | 5.0 | 50.0 | 25 | 1.35 | |
| NMC0805X7R155K10TRPLPF | | | 1.5μF | ±10% | 5.0 | 66.6 | 25 | 1.45 | |
| NMC0805X7R225K10TRPLPF | | | 2.2μF | ±10% | 10 | 22.7 | 25 | 1.45 | |
| NMC0805X7R475K10TRPLPF | | | 4.7μF | ±10% | 10 | 10.6 | 25 | 1.45 | |
| NMC0805X7R106K10TRPLPF | | | 10μF | ±10% | 15 | 5.0 | 25 | 1.45 | |
| NMC0805X7R105K16TRPLPF | | 16 | 1.0μF | ±10% | 5.0 | 50.0 | 40 | 1.35 | |
| NMC0805X7R225K16TRPLPF | | | 2.2μF | ±10% | 10 | 22.7 | 40 | 1.45 | |
| NMC0805X7R335K16TRPLPF | | | 3.3μF | ±10% | 10 | 30.3 | 40 | 1.45 | |
| NMC0805X7R475K16TRPLPF | | | 4.7μF | ±10% | 10 | 10.6 | 40 | 1.45 | |
| NMC0805X7R106K16TRPLPF | | | 10μF | ±10% | 10 | 5.0 | 40 | 1.45 | |
| NMC0805X7R105K25TRPLPF | | 25 | 1.0μF | ±10% | 5.0 | 50.0 | 62.5 | 1.35 | |
| NMC0805X7R225K25TRPLPF | | | 2.2μF | ±10% | 10 | 22.7 | 62.5 | 1.45 | |
| NMC0805X7R335K25TRPLPF | | | 3.3μF | ±10% | 10 | 30.3 | 62.5 | 1.45 | |
| NMC0805X7R475K25TRPLPF | | | 4.7μF | ±10% | 10 | 21.2 | 62.5 | 1.40 | |
| NMC0805X7R105K50TRPLPF | | 50 | 1.0μF | ±10% | 10 | 50.0 | 125 | 1.45 | |
| NMC0805X7R225K50TRPLPF | | | 2.2μF | ±10% | 10 | 22.7 | 125 | 1.45 | |
| NMC0805X7R105K100TRPLPF | | 100 | 1.0μF | ±10% | 5.0 | 500 | 200 | 1.45 | |
| NMC1206X7R106K6.3TRPLPF | | 1206 | 6.3 | 10μF | ±10% | 10 | 5.0 | 15.75 | 1.9 |
| NMC1206X7R226K6.3TRPLPF | | | | 22μF | ±10% | 10 | 2.3 | 15.75 | 1.9 |
| NMC1206X7R105K10TRPLPF | | | 10 | 1.0μF | ±10% | 10 | 50.0 | 25 | 1.9 |
| NMC1206X7R225K10TRPLPF | | | | 2.2μF | ±10% | 10 | 22.7 | 25 | 1.9 |
| NMC1206X7R335K10TRPLPF | | | | 3.3μF | ±10% | 5.0 | 30.3 | 25 | 1.9 |
| NMC1206X7R475K10TRPLPF | | | | 4.7μF | ±10% | 10 | 10.6 | 25 | 1.9 |
| NMC1206X7R106K10TRPLPF | | | | 10μF | ±10% | 10 | 5.0 | 25 | 1.9 |
| NMC1206X7R226K10TRPLPF | 22μF | | | ±10% | 10 | 2.3 | 25 | 1.9 | |
| NMC1206X7R105K16TRPLPF | 16 | | 1.0μF | ±10% | 5.0 | 50.0 | 40 | 1.9 | |
| NMC1206X7R225K16TRPLPF | | | 2.2μF | ±10% | 10 | 22.7 | 40 | 1.9 | |
| NMC1206X7R335K16TRPLPF | | | 3.3μF | ±10% | 5.0 | 30.3 | 40 | 1.9 | |
| NMC1206X7R475K16TRPLPF | | | 4.7μF | ±10% | 10 | 10.6 | 40 | 1.9 | |
| NMC1206X7R685K16TRPLPF | | | 6.8μF | ±10% | 5.0 | 14 | 40 | 1.9 | |
| NMC1206X7R106K16TRPLPF | | | 10μF | ±10% | 10 | 5.0 | 40 | 2.2 | |
| NMC1206X7R105K25TRPLPF | 25 | | 1.0μF | ±10% | 3.5 | 50.0 | 62.5 | 1.9 | |
| NMC1206X7R225K25TRPLPF | | | 2.2μF | ±10% | 5.0 | 2.7 | 62.5 | 1.9 | |
| NMC1206X7R335K25TRPLPF | | | 3.3μF | ±10% | 3.5 | 30.3 | 62.5 | 1.9 | |

Shaded parts are temporarily out of production



X7R Continue on next page

X7R PART NUMBERS AND SPECIFICATIONS

| Part Number | Case Size | Voltage (Vdc) | Cap. | Cap. Tol. | DF (%) | IR (MΩ) | DWV (Vdc) | Max. T (mm) | |
|-------------------------|-----------|---------------|-------|-----------|--------|---------|-----------|-------------|-----|
| NMC1206X7R475K25TRPLPF | 1206 | 25 | 4.7μF | ±10% | 10 | 10.6 | 62.5 | 1.9 | |
| NMC1206X7R106K25TRPLPF | | | 10μF | ±10% | 10 | 5.0 | 62.5 | 1.9 | |
| NMC1206X7R105K50TRPLPF | | 50 | 1.0μF | ±10% | 3.5 | 50.0 | 125 | 1.9 | |
| NMC1206X7R225K50TRPLPF | | | 2.2μF | ±10% | 10 | 22.7 | 125 | 1.9 | |
| NMC1206X7R475K50TRPLPF | | | 4.7μF | ±10% | 10 | 10.6 | 125 | 1.9 | |
| NMC1206X7R105K100TRPLPF | | 100 | 1.0μF | ±10% | 10 | 50.0 | 250 | 1.9 | |
| NMC1206X7R225M100TRPLPF | | | 2.2μF | ±20% | 10 | 45.4 | 200 | 1.8 | |
| NMC1210X7R476K6.3TRPLPF | 1210 | 6.3 | 47μF | ±10% | 10 | 1.1 | 15.75 | 2.7 | |
| NMC1210X7R105K10TRPLPF | | 10 | 1.0μF | ±10% | 5.0 | 100.0 | 25 | 2.2 | |
| NMC1210X7R475K10TRPLPF | | | 4.7μF | ±10% | 10 | 21.2 | 25 | 2.2 | |
| NMC1210X7R106K10TRPLPF | | | 10μF | ±10% | 10 | 5.0 | 25 | 2.8 | |
| NMC1210X7R476K10TRPLPF | | | 47μF | ±10% | 10 | 2.1 | 25 | 2.7 | |
| NMC1210X7R105K16TRPLPF | | 16 | 1.0μF | ±10% | 3.5 | 100.0 | 40 | 2.2 | |
| NMC1210X7R335K16TRPLPF | | | 3.3μF | ±10% | 3.5 | 30.3 | 40 | 2.2 | |
| NMC1210X7R475K16TRPLPF | | | 4.7μF | ±10% | 3.5 | 21.2 | 40 | 2.2 | |
| NMC1210X7R106K16TRPLPF | | | 10μF | ±10% | 10 | 5.0 | 40 | 2.8 | |
| NMC1210X7R226K16TRPLPF | | 22μF | ±10% | 10 | 4.5 | 40 | 2.7 | | |
| NMC1210X7R105K25TRPLPF | | 25 | 1.0μF | ±10% | 3.5 | 100.0 | 62.5 | 2.2 | |
| NMC1210X7R225K25TRPLPF | | | 2.2μF | ±10% | 3.5 | 45.4 | 62.5 | 2.2 | |
| NMC1210X7R335K25TRPLPF | | | 3.3μF | ±10% | 3.5 | 30.3 | 62.5 | 2.2 | |
| NMC1210X7R475K25TRPLPF | | | 4.7μF | ±10% | 10 | 10.6 | 62.5 | 2.2 | |
| NMC1210X7R106K25TRPLPF | | | 10μF | ±10% | 10 | 5.0 | 62.5 | 2.8 | |
| NMC1210X7R226K25TRPLPF | | | 22μF | ±10% | 10 | 4.5 | 62.5 | 2.7 | |
| NMC1210X7R106K35TRPLPF | | 35 | 10μF | ±10% | 10 | 10.0 | 87.5 | 2.8 | |
| NMC1210X7R105K50TRPLPF | | 50 | 1.0μF | ±10% | 3.5 | 100.0 | 125 | 2.2 | |
| NMC1210X7R225K50TRPLPF | | | 2.2μF | ±10% | 5.0 | 45.5 | 125 | 2.8 | |
| NMC1210X7R475K50TRPLPF | | | 4.7μF | ±10% | 10 | 10.6 | 125 | 2.2 | |
| NMC1210X7R106K50TRPLPF | | | 10μF | ±10% | 10 | 5.0 | 125 | 2.8 | |
| NMC1210X7R105K100TRPLPF | | 100 | 1.0μF | ±10% | 10 | 50.0 | 250 | 2.8 | |
| NMC1210X7R225K100TRPLPF | | | 2.2μF | ±10% | 10 | 22.7 | 250 | 2.2 | |
| NMC1210X7R475K100TRPLPF | | | 4.7μF | ±10% | 5.0 | 21.2 | 250 | 2.8 | |
| NMC1812X7R105K10TRPLPF | | 1812 | 10 | 1.0μF | ±10% | 5.0 | 100.0 | 25 | 1.8 |
| NMC1812X7R105K16TRPLPF | | | 16 | 1.0μF | ±10% | 3.5 | 100.0 | 40 | 1.8 |
| NMC1812X7R105K25TRPLPF | | | 25 | 1.0μF | ±10% | 3.5 | 100.0 | 62.5 | 1.8 |
| NMC1812X7R106K25TRPLPF | | | | 10μF | ±10% | 3.5 | 50.0 | 62.5 | 2.8 |
| NMC1812X7R105K50TRPLPF | | | 50 | 1.0μF | ±10% | 2.5 | 100.0 | 125 | 2.8 |
| NMC1812X7R475K50TRPLPF | | | | 4.7μF | ±10% | 10 | 21.2 | 125 | 2.2 |
| NMC1812X7R106K50TRPLPF | 10μF | | | ±10% | 10 | 10.0 | 125 | 2.2 | |
| NMC1812X7R105K100TRPLPF | 100 | | 1.0μF | ±10% | 2.5 | 100.0 | 250 | 2.8 | |
| NMC1812X7R225K100TRPLPF | | | 2.2μF | ±10% | 5.0 | 45.5 | 250 | 2.8 | |
| NMC2220X7R475K50TRPLPF | 2220 | | 50 | 4.7μF | ±10% | 10 | 21.2 | 125 | 2.2 |
| NMC2220X7R106K50TRPLPF | | 10μF | | ±10% | 10 | 10.0 | 125 | 3.0 | |
| NMC2220X7R475K100TRPLPF | | 100 | 4.7μF | ±10% | 2.5 | 21.2 | 250 | 2.2 | |
| NMC2220X7R106K100TRPLPF | | | 10μF | ±10% | 2.5 | 10.0 | 250 | 3.0 | |
| NMC2225X7R105K25TRPLPF | 2225 | 25 | 1.0μF | ±10% | 2.5 | 100.0 | 62.5 | 2.2 | |
| NMC2225X7R155K25TRPLPF | | | 1.5μF | ±10% | 2.5 | 66.6 | 62.5 | 2.2 | |
| NMC2225X7R225K25TRPLPF | | | 2.2μF | ±10% | 2.5 | 45.4 | 62.5 | 2.2 | |
| NMC2225X7R105K50TRPLPF | | 50 | 1.0μF | ±10% | 2.5 | 100.0 | 125 | 2.2 | |
| NMC2225X7R105K100TRPLPF | | | 1.0μF | ±10% | 2.5 | 100.0 | 250 | 2.2 | |

Shaded parts are temporarily out of production



X6S PART NUMBERS AND SPECIFICATIONS

| Part Number | Case Size | Voltage (Vdc) | Cap. | Cap. Tol. | DF (%) | IR (MΩ) | DWV (Vdc) | Max. T (mm) | |
|-------------------------|-----------|---------------|-------|-----------|--------|---------|-----------|-------------|------|
| NMC0201X6S105M4TRPF | 0201 | 4 | 1.0μF | 20% | 15 | 50.00 | 10 | 0.35 | |
| NMC0402X6S105K6.3TRPF | 0402 | 6.3 | 1.0μF | 10% | 15 | 50.00 | 15.75 | 0.55 | |
| NMC0402X6S225K6.3TRPF | | | 2.2μF | 10% | 20 | 22.73 | 15.75 | 0.55 | |
| NMC0402X6S106M6.3TRPF | | | 10μF | 20% | 5.0 | 5.00 | 15.75 | 0.70 | |
| NMC0402X6S105K10TRPF | | 10 | 1.0μF | 10% | 15 | 50.00 | 25 | 0.70 | |
| NMC0402X6S225K10TRPF | | | 2.2μF | 10% | 15 | 22.73 | 25 | 0.70 | |
| NMC0402X6S105K16TRPF | | 16 | 1.0μF | 10% | 10 | 50.00 | 40 | 0.70 | |
| NMC0402X6S225K16TRPF | | | 2.2μF | 10% | 10 | 22.73 | 40 | 0.70 | |
| NMC0402X6S105K25TRPF | | 25 | 1.0μF | 10% | 12.5 | 50.00 | 62.5 | 0.70 | |
| NMC0603X6S226M4TRPF | | 0603 | 4 | 22μF | 20% | 15 | 2.27 | 10 | 1.00 |
| NMC0603X6S475K6.3TRPF | | | 6.3 | 4.7μF | 10% | 10 | 10.64 | 15.75 | 0.95 |
| NMC0603X6S106M6.3TRPF | 10μF | | | 20% | 15 | 5.00 | 15.75 | 1.00 | |
| NMC0603X6S226M6.3TRPF | 22μF | | | 20% | 15 | 2.27 | 15.75 | 1.00 | |
| NMC0603X6S106M10TRPF | 10 | | 10μF | 20% | 10 | 5.00 | 25 | 1.00 | |
| NMC0603X6S475K16TRPF | 16 | | 4.7μF | 10% | 10 | 10.64 | 40 | 1.00 | |
| NMC0603X6S106M16TRPF | | | 10μF | 20% | 10 | 5.00 | 40 | 1.00 | |
| NMC0603X6S225K25TRPF | 25 | | 2.2μF | 10% | 10 | 22.73 | 62.5 | 1.00 | |
| NMC0603X6S475K25TRPF | | | 4.7μF | 10% | 10 | 10.64 | 62.5 | 1.00 | |
| NMC0805X6S106K4TRPLPF | 0805 | | 4 | 10μF | 10% | 15 | 5.00 | 10 | 1.45 |
| NMC0805X6S476M4TRPLPF | | 47μF | | 20% | 15 | 1.06 | 10 | 1.45 | |
| NMC0805X6S106K6.3TRPLPF | | 6.3 | 10μF | 10% | 15 | 5.00 | 15.75 | 1.45 | |
| NMC0805X6S226M6.3TRPLPF | | | 22μF | 20% | 15 | 2.27 | 15.75 | 1.45 | |
| NMC0805X6S106K10TRPLPF | | 10 | 10μF | 10% | 10 | 5.00 | 25 | 1.45 | |
| NMC0805X6S226M10TRPLPF | | | 22μF | 20% | 10 | 2.27 | 25 | 1.45 | |
| NMC0805X6S225K16TRPLPF | | 16 | 2.2μF | 10% | 10 | 22.7 | 40 | 1.45 | |
| NMC0805X6S106K16TRPLPF | | | 10μF | 10% | 10 | 5.00 | 40 | 1.45 | |
| NMC0805X6S226M16TRPLPF | | | 22μF | 20% | 10 | 2.27 | 40 | 1.45 | |
| NMC0805X6S475K25TRPLPF | | 25 | 4.7μF | 10% | 10 | 10.64 | 62.5 | 1.45 | |
| NMC0805X6S106K25TRPLPF | | | 10μF | 10% | 10 | 5.00 | 62.5 | 1.45 | |
| NMC0805X6S475K50TRPLPF | | 50 | 4.7μF | 10% | 10 | 10.64 | 125 | 1.45 | |
| NMC1206X6S476K6.3TRPLPF | | 1206 | 6.3 | 47μF | 10% | 15 | 1.06 | 15.75 | 1.90 |
| NMC1206X6S226K10TRPLPF | | | 10 | 22μF | 10% | 10 | 2.27 | 25 | 1.90 |
| NMC1206X6S226M16TRPLPF | 16 | | 22μF | 20% | 10 | 2.27 | 40 | 1.90 | |
| NMC1206X6S106K25TRPLPF | 25 | | 10μF | 10% | 10 | 5.00 | 40 | 1.80 | |
| NMC1210X6S476K6.3TRPLPF | 1210 | 6.3 | 47μF | 10% | 10 | 1.06 | 15.75 | 2.80 | |
| NMC1210X6S107M6.3TRPLPF | | | 100μF | 20% | 15 | 0.50 | 15.75 | 2.80 | |
| NMC1210X6S476K10TRPLPF | | 10 | 47μF | 10% | 10 | 1.06 | 25 | 2.80 | |
| NMC1210X6S476K16TRPLPF | | 16 | 47μF | 10% | 10 | 1.06 | 40 | 2.80 | |
| NMC1210X6S226K25TRPLPF | | 25 | 22μF | 10% | 10 | 2.27 | 62.5 | 2.80 | |

Denotes New Value



X5R PART NUMBERS AND SPECIFICATIONS

| Part Number | Case Size | Voltage (Vdc) | Cap. | Cap. Tol. | DF (%) | IR (MΩ) | DWV (Vdc) | Max. T (mm) | |
|-------------------------|-----------|---------------|-------|-----------|--------|---------|-----------|-------------|-----|
| NMC0201X5R105M4TRPF | 0201 | 4 | 1.0μF | ±20% | 12.5 | 50.0 | 10 | 0.35 | |
| NMC0201X5R105K6.3TRPF | | 6.3 | 1.0μF | ±10% | 12.5 | 10.0 | 15.75 | 0.35 | |
| NMC0201X5R225M6.3TRPF | | | 2.2μF | ±20% | 15 | 4.54 | 15.75 | 0.39 | |
| NMC0201X5R105M10TRPF | | 10 | 1.0μF | ±20% | 12.5 | 10.0 | 25 | 0.35 | |
| NMC0201X5R225M10TRPF | | | 2.2μF | ±20% | 15.0 | 4.5 | 25 | 0.39 | |
| NMC0201X5R105M16TRPF | | 16 | 1.0μF | ±20% | 12.5 | 10 | 40 | 0.39 | |
| NMC0402X5R225K4TRPF | 0402 | 4 | 2.2μF | ±10% | 10 | 22.7 | 10 | 0.60 | |
| NMC0402X5R475K4TRPF | | | 4.7μF | ±10% | 15 | 10.6 | 10 | 0.60 | |
| NMC0402X5R105K6.3TRPF | | 6.3 | 1.0μF | ±10% | 12.5 | 50.0 | 15.75 | 0.60 | |
| NMC0402X5R225K6.3TRPF | | | 2.2μF | ±10% | 10 | 22.7 | 15.75 | 0.60 | |
| NMC0402X5R475K6.3TRPF** | | | 4.7μF | ±10% | 12.5 | 10.6 | 15.75 | 0.65 | |
| NMC0402X5R106K6.3TRPF | | | 10μF | ±10% | 15 | 5.0 | 15.75 | 0.60 | |
| NMC0402X5R106M6.3TRPF | | 10 | 10μF | ±20% | 15 | 5.0 | 15.75 | 0.60 | |
| NMC0402X5R105K10TRPF | | | 1.0μF | ±10% | 15 | 50.0 | 25 | 0.60 | |
| NMC0402X5R225K10TRPF | | | 2.2μF | ±10% | 15 | 22.7 | 25 | 0.60 | |
| NMC0402X5R475K10TRPF | | | 4.7μF | ±10% | 15 | 21.0 | 25 | 0.70 | |
| NMC0402X5R106M10TRPF | | 16 | 10μF | ±20% | 12.5 | 5.0 | 25 | 0.70 | |
| NMC0402X5R105K16TRPF | | | 1.0μF | ±10% | 12.5 | 50.0 | 40 | 0.60 | |
| NMC0402X5R475M16TRPF | | 25 | 4.7μF | ±20% | 12.5 | 10.6 | 40 | 0.70 | |
| NMC0402X5R105K25TRPF | | | 1.0μF | ±10% | 10 | 100.0 | 62.5 | 0.60 | |
| NMC0402X5R225M25TRPF | | 50 | 2.2μF | ±20% | 10 | 45.4 | 62.5 | 0.70 | |
| NMC0402X5R105K50TRPF | | | 1.0μF | ±10% | 10 | 100 | 125 | 0.70 | |
| NMC0603X5R106K4TRPF | | 0603 | 4 | 10μF | ±10% | 10 | 5.0 | 10 | 1.0 |
| NMC0603X5R226K4TRPF* | | | | 22μF | ±10% | 12.5 | 2.3 | 10 | 1.0 |
| NMC0603X5R476M4TRPF | | | | 47μF | ±20% | 12.5 | 10.4 | 10 | 1.1 |
| NMC0603X5R105K6.3TRPF | | | 6.3 | 1.0μF | ±10% | 10 | 50.0 | 15.75 | 1.0 |
| NMC0603X5R225K6.3TRPF | 2.2μF | | | ±10% | 10 | 22.7 | 15.75 | 1.0 | |
| NMC0603X5R226M6.3TRPF | 22μF | | | ±20% | 12.5 | 2.3 | 15.75 | 1.0 | |
| NMC0603X5R475K6.3TRPF | 4.7μF | | | ±10% | 10 | 10.6 | 15.75 | 1.0 | |
| NMC0603X5R106K6.3TRPF | 10μF | | | ±10% | 10 | 5.0 | 15.75 | 1.0 | |
| NMC0603X5R226M6.3TRPF | 22μF | | | ±20% | 15 | 4.54 | 15.75 | 1.0 | |
| NMC0603X5R476M6.3TRPF | 47μF | | ±20% | 15 | 2.12 | 15.75 | 1.0 | | |
| NMC0603X5R105K10TRPF | 10 | | 1.0μF | ±10% | 10 | 50.0 | 25 | 1.0 | |
| NMC0603X5R225K10TRPF | | | 2.2μF | ±10% | 10 | 22.7 | 25 | 1.0 | |
| NMC0603X5R475K10TRPF | | | 4.7μF | ±10% | 10 | 10.6 | 25 | 1.0 | |
| NMC0603X5R106K10TRPF | | | 10μF | ±10% | 10 | 5.0 | 25 | 1.0 | |
| NMC0603X5R226M10TRPF | | | 22μF | ±20% | 20 | 4.5 | 25 | 1.0 | |
| NMC0603X5R105K16TRPF | | | 16 | 1.0μF | ±10% | 10 | 50.0 | 40 | 1.0 |
| NMC0603X5R225K16TRPF | 2.2μF | | | ±10% | 10 | 22.7 | 40 | 1.0 | |
| NMC0603X5R475K16TRPF | 4.7μF | | | ±10% | 10 | 10.6 | 40 | 1.0 | |
| NMC0603X5R106M16TRPF | 10μF | | | ±20% | 10 | 10.0 | 40 | 1.0 | |
| NMC0603X5R105K25TRPF | 25 | | 1.0μF | ±10% | 10 | 50.0 | 62.5 | 1.0 | |
| NMC0603X5R106M25TRPF | | | 10μF | ±20% | 10 | 10.0 | 62.5 | 1.0 | |
| NMC0603X5R105K35TRPF | 35 | | 1.0μF | ±10% | 10 | 50.0 | 87.5 | 1.0 | |
| NMC0603X5R225K35TRPF | | | 2.2μF | ±10% | 10 | 10.0 | 87.5 | 1.0 | |
| NMC0603X5R105K50TRPF | 50 | | 1.0μF | ±10% | 10 | 50.0 | 125 | 1.0 | |

*Length (L) dimension tolerance for these values is ±0.40mm.

**Length (L) and width (W) tolerance for this value is ±0.15

(see dimensions tabel on page 10)

Shaded parts are temporarily out of production



X5R Continue on next page

X5R PART NUMBERS AND SPECIFICATIONS

| Part Number | Case Size | Voltage (Vdc) | Cap. | Cap. Tol. | DF (%) | IR (MΩ) | DWV (Vdc) | Max. T (mm) | |
|-------------------------|-----------|---------------|-------|-----------|--------|---------|-----------|-------------|------|
| NMC0603X5R225K50TRPF | 0603 | 50 | 2.2μF | ±10% | 10 | 45.4 | 125 | 1.0 | |
| NMC0805X5R476K4TRPLPF | 0805 | 4 | 47μF | K | 10 | 1.1 | 10 | 1.45 | |
| NMC0805X5R107M4TRPLPF | | | 100μF | M | 15 | 0.5 | 10 | 1.45 | |
| NMC0805X5R105K6.3TRPLPF | | 6.3 | 1.0μF | K | 10 | 100.0 | 15.75 | 1.45 | |
| NMC0805X5R225K6.3TRPLPF | | | 2.2μF | K | 10 | 45.4 | 15.75 | 1.45 | |
| NMC0805X5R335K6.3TRPLPF | | | 3.3μF | K | 10 | 30.3 | 15.75 | 1.45 | |
| NMC0805X5R475K6.3TRPLPF | | | 4.7μF | K | 10 | 10.6 | 15.75 | 1.45 | |
| NMC0805X5R106K6.3TRPLPF | | | 10μF | K | 10 | 5.0 | 15.75 | 1.45 | |
| NMC0805X5R226K6.3TRPLPF | | | 22μF | K | 15 | 2.3 | 15.75 | 1.45 | |
| NMC0805X5R476K6.3TRPLPF | | | 47μF | K | 10 | 1.1 | 15.75 | 1.45 | |
| NMC0805X5R107M6.3TRPLPF | | | 100μF | M | 15 | 1.0 | 15.75 | 1.45 | |
| NMC0805X5R105K10TRPLPF | | 10 | 1.0μF | K | 7.5 | 100.0 | 25 | 1.45 | |
| NMC0805X5R155K10TRPLPF | | | 1.5μF | K | 5 | 66.7 | 25 | 1.45 | |
| NMC0805X5R225K10TRPLPF | | 0805 | 10 | 2.2μF | K | 10 | 45.4 | 25 | 1.45 |
| NMC0805X5R335K10TRPLPF | | | | 3.3μF | K | 10 | 30.3 | 25 | 1.45 |
| NMC0805X5R475K10TRPLPF | 4.7μF | | | K | 10 | 21.2 | 25 | 1.45 | |
| NMC0805X5R106K10TRPF | 10μF | | | K | 10 | 10.0 | 25 | 1.0 | |
| NMC0805X5R106K10TRPLPF | 10μF | | | K | 10 | 5.0 | 25 | 1.45 | |
| NMC0805X5R226K10TRPLPF | 22μF | | | K | 15 | 2.3 | 25 | 1.45 | |
| NMC0805X5R476M10TRPLPF | 47μF | | | M | 10 | 2.12 | 25 | 1.45 | |
| NMC0805X5R105K16TRPLPF | 16 | | | 1.0μF | K | 10 | 50.0 | 40 | 1.45 |
| NMC0805X5R225K16TRPLPF | | | 2.2μF | K | 5 | 22.7 | 40 | 1.45 | |
| NMC0805X5R475K16TRPLPF | | | 4.7μF | K | 10 | 10.6 | 40 | 1.45 | |
| NMC0805X5R106K16TRPLPF | | | 10μF | K | 10 | 5.0 | 40 | 1.45 | |
| NMC0805X5R226K16TRPLPF | 25 | | 22μF | K | 10 | 4.5 | 40 | 1.45 | |
| NMC0805X5R105K25TRPLPF | | | 1.0μF | K | 10 | 50.0 | 62.5 | 1.45 | |
| NMC0805X5R225K25TRPLPF | | | 2.2μF | K | 10 | 22.7 | 62.5 | 1.45 | |
| NMC0805X5R475K25TRPLPF | | 4.7μF | K | 10 | 10.6 | 62.5 | 1.45 | | |
| NMC0805X5R106K25TRPLPF | | 10μF | K | 10 | 5.0 | 62.5 | 1.45 | | |
| NMC0805X5R226M25TRPLPF | | 22μF | M | 10 | 4.54 | 62.5 | 1.45 | | |
| NMC0805X5R226M35TRPLPF | | 35 | 22μF | M | 10 | 22.7 | 87.5 | 1.45 | |
| NMC0805X5R106K50TRPLPF | | 50 | 10μF | K | 10 | 10.0 | 125 | 1.45 | |
| NMC1206X5R476K4TRPLPF | 1206 | 4 | 47μF | K | 15 | 1.1 | 10 | 1.9 | |
| NMC1206X5R107K4TRPLPF | | | 100μF | K | 15 | 0.5 | 10 | 1.9 | |
| NMC1206X5R227M4TRPLPF | | | 220μF | M | 15 | 0.45 | 10 | 1.9 | |
| NMC1206X5R475K6.3TRPLPF | | 6.3 | 4.7μF | K | 10 | 10.6 | 15.75 | 1.9 | |
| NMC1206X5R685K6.3TRPLPF | | | 6.8μF | K | 10 | 14.7 | 15.75 | 1.9 | |
| NMC1206X5R106K6.3TRPLPF | | | 10μF | K | 10 | 5.0 | 15.75 | 1.9 | |
| NMC1206X5R226K6.3TRPLPF | | | 22μF | K | 10 | 2.3 | 15.75 | 1.9 | |
| NMC1206X5R476K6.3TRPLPF | | | 47μF | K | 10 | 1.1 | 15.75 | 1.9 | |
| NMC1206X5R107M6.3TRPLPF | | | 100μF | M | 10 | 0.5 | 15.75 | 1.8 | |
| NMC1206X5R225K10TRPLPF | | | 10 | 2.2μF | K | 7.5 | 22.7 | 25 | 1.9 |
| NMC1206X5R335K10TRPLPF | | | | 3.3μF | K | 7.5 | 30.3 | 25 | 1.9 |
| NMC1206X5R475K10TRPLPF | | 4.7μF | | K | 7.5 | 10.6 | 25 | 1.9 | |
| NMC1206X5R106K10TRPLPF | | 10μF | | K | 10 | 5.0 | 25 | 1.9 | |
| NMC1206X5R226K10TRPLPF | | 22μF | | K | 10 | 2.3 | 25 | 1.9 | |
| NMC1206X5R476K10TRPLPF | | 47μF | | K | 10 | 1.1 | 25 | 1.9 | |
| NMC1206X5R107M10TRPLPF | | 100μF | | M | 10 | 1.0 | 25 | 1.9 | |



Shaded parts are temporarily out of production

X5R PART NUMBERS AND SPECIFICATIONS

| Part Number | Case Size | Voltage (Vdc) | Cap. | Cap. Tol. | DF (%) | IR (MΩ) | DWV (Vdc) | Max. T (mm) | | | |
|-------------------------|-----------|---------------|-------|-----------|--------|---------|-----------|-------------|-------|------|------|
| NMC1206X5R225K16TRPLPF | 1206 | 16 | 2.2μF | K | 5 | 22.7 | 40 | 1.9 | | | |
| NMC1206X5R335K16TRPLPF | | | 3.3μF | K | 5 | 30.3 | 40 | 1.9 | | | |
| NMC1206X5R475K16TRPLPF | | | 4.7μF | K | 5 | 10.6 | 40 | 1.9 | | | |
| NMC1206X5R106K16TRPLPF | | | 10μF | K | 10 | 5.0 | 40 | 1.9 | | | |
| NMC1206X5R226K16TRPLPF | | | 22μF | K | 10 | 2.3 | 40 | 1.9 | | | |
| NMC1206X5R476M16TRPLPF | | | 47μF | M | 10 | 2.0 | 40 | 1.8 | | | |
| NMC1206X5R105K25TRPLPF | | 25 | 25 | 1.0μF | K | 3.5 | 100.0 | 62.5 | 1.9 | | |
| NMC1206X5R225K25TRPLPF | | | | 2.2μF | K | 5 | 22.7 | 62.5 | 1.9 | | |
| NMC1206X5R335K25TRPLPF | | | | 3.3μF | K | 3.5 | 30.3 | 62.5 | 1.9 | | |
| NMC1206X5R475K25TRPLPF | | | | 4.7μF | K | 5 | 10.6 | 62.5 | 1.9 | | |
| NMC1206X5R106K25TRPLPF | | | | 10μF | K | 10 | 5.0 | 62.5 | 1.9 | | |
| NMC1206X5R226K25TRPLPF | | | | 22μF | K | 10 | 2.3 | 62.5 | 1.9 | | |
| NMC1206X5R476M25TRPLPF | | | | 47μF | M | 10 | 10.6 | 62.5 | 1.8 | | |
| NMC1206X5R105M35TRPLPF | | | | 35 | 35 | 1.0μF | M | 3.5 | 100.0 | 87.5 | 1.9 |
| NMC1206X5R156M35TRPLPF | | | | | | 15μF | M | 10 | 33 | 87.5 | 1.8 |
| NMC1206X5R226M35TRPLPF | | 22μF | M | | | 10 | 22.7 | 87.5 | 1.8 | | |
| NMC1206X5R106K50TRPLPF | | 50 | 50 | 10μF | K | 12.5 | 10 | 125 | 1.8 | | |
| NMC1210X5R227M4TRPLPF | | 1210 | 4 | 220μF | M | 15 | 0.45 | 10 | 2.8 | | |
| NMC1210X5R106K6.3TRPLPF | | | | 6.3 | 10μF | K | 10 | 10.0 | 15.75 | 2.2 | |
| NMC1210X5R226K6.3TRPLPF | | | | | 22μF | K | 10 | 2.3 | 15.75 | 2.2 | |
| NMC1210X5R476K6.3TRPLPF | | | | | 47μF | K | 10 | 1.1 | 15.75 | 2.8 | |
| NMC1210X5R107M6.3TRPLPF | 100μF | | | | M | 15 | 0.5 | 15.75 | 2.8 | | |
| NMC1210X5R227K6.3TRPLPF | 220μF | | | | K | 15 | 0.45 | 15.75 | 2.8 | | |
| NMC1210X5R475K10TRPLPF | 10 | | 10 | | 4.7μF | K | 5 | 21.2 | 25 | 2.2 | |
| NMC1210X5R106K10TRPLPF | | | | 10μF | K | 5 | 10.0 | 25 | 2.8 | | |
| NMC1210X5R226K10TRPLPF | | | | 22μF | K | 10 | 2.3 | 25 | 2.8 | | |
| NMC1210X5R476K10TRPLPF | | | | 47μF | K | 10 | 1.1 | 25 | 2.8 | | |
| NMC1210X5R107M10TRPLPF | | | | 100μF | M | 10 | 1.0 | 25 | 2.8 | | |
| NMC1210X5R475K16TRPLPF | | | | 16 | 16 | 4.7μF | K | 5 | 10.6 | 40 | 2.2 |
| NMC1210X5R106K16TRPLPF | 10μF | | K | | | 5 | 5.0 | 40 | 2.2 | | |
| NMC1210X5R226K16TRPLPF | 22μF | | K | | | 10 | 2.3 | 40 | 2.8 | | |
| NMC1210X5R476K16TRPLPF | 47μF | | K | | | 10 | 1.1 | 40 | 2.8 | | |
| NMC1210X5R107M16TRPLPF | 100μF | | M | | | 10 | 0.50 | 40 | 2.8 | | |
| NMC1210X5R475K25TRPLPF | 25 | | 25 | | | 4.7μF | K | 10 | 10.6 | 62.5 | 2.2 |
| NMC1210X5R106K25TRPLPF | | | | 10μF | K | 10 | 5.0 | 62.5 | 2.2 | | |
| NMC1210X5R226K25TRPLPF | | | | 22μF | K | 10 | 4.5 | 62.5 | 2.7 | | |
| NMC1210X5R476M25TRPLPF | | | | 47μF | M | 10 | 2.12 | 62.5 | 2.8 | | |
| NMC1210X5R225K35TRPLPF | | | | 35 | 35 | 2.2μF | K | 3.5 | 45.4 | 87.5 | 2.2 |
| NMC1210X5R106K35TRPLPF | | | | | | 10μF | K | 10 | 10.0 | 87.5 | 2.2 |
| NMC1210X5R105K50TRPLPF | 50 | | 50 | | | 1.0μF | K | 10 | 100.0 | 125 | 1.45 |
| NMC1210X5R106K50TRPLPF | | | | 10μF | K | 10 | 10.0 | 125 | 2.2 | | |
| NMC1210X5R106M50TRPLPF | | | | 10μF | M | 10 | 5.0 | 125 | 2.7 | | |
| NMC1812X5R107M6.3TRPLPF | 1812 | | 6.3 | 100μF | M | 10 | 1.0 | 15.75 | 3.1 | | |
| NMC2220X5R106K50TRPLPF | 2220 | | 50 | 10μF | K | 2.5 | 10.0 | 125 | 3.0 | | |
| NMC2220X5R106M50TRPLPF | | | 50 | 10μF | M | 2.5 | 10.0 | 125 | 3.0 | | |

Shaded parts are temporarily out of production



Y5V PART NUMBERS AND SPECIFICATIONS

| Part Number | Case Size | Voltage (Vdc) | Cap. | Cap. Tol. | DF (%) | IR (MΩ) | DWV (Vdc) | Max. T (mm) | |
|-------------------------|-----------|---------------|-------|-----------|--------|---------|-----------|-------------|------|
| NMC0402Y5V105Z6.3TRPF | 0402 | 6.3 | 1.0μF | Z | 20 | 50.0 | 9.45 | 0.6 | |
| NMC0402Y5V105Z10TRPF | | 10 | 1.0μF | Z | 12.5 | 50.0 | 15 | 0.6 | |
| NMC0603Y5V225Z6.3TRPF | 0603 | 6.3 | 2.2μF | Z | 20 | 22.7 | 9.45 | 1.0 | |
| NMC0603Y5V105Z10TRPF | | 10 | 1.0μF | Z | 16 | 50.0 | 15 | 1.0 | |
| NMC0603Y5V225Z10TRPF | | | 2.2μF | Z | 16 | 22.7 | 15 | 1.0 | |
| NMC0603Y5V105Z16TRPF | | 16 | 1.0μF | Z | 16 | 50.0 | 24 | 1.0 | |
| NMC0603Y5V225Z16TRPF | | | 2.2μF | Z | 16 | 22.7 | 24 | 1.0 | |
| NMC0805Y5V475Z6.3TRPLPF | | 0805 | 6.3 | 4.7μF | Z | 16 | 10.6 | 9.45 | 1.45 |
| NMC0805Y5V106Z6.3TRPLPF | 10μF | | | Z | 20 | 5.0 | 9.45 | 1.45 | |
| NMC0805Y5V105Z10TRPLPF | 10 | | 1.0μF | Z | 12.5 | 100.0 | 15 | 1.45 | |
| NMC0805Y5V155Z10TRPLPF | | | 1.5μF | Z | 12.5 | 66.6 | 15 | 1.45 | |
| NMC0805Y5V225Z10TRPLPF | | | 2.2μF | Z | 12.5 | 45.4 | 15 | 1.45 | |
| NMC0805Y5V335Z10TRPLPF | | | 3.3μF | Z | 12.5 | 30.3 | 15 | 1.45 | |
| NMC0805Y5V475Z10TRPLPF | | | 4.7μF | Z | 12.5 | 10.6 | 15 | 1.45 | |
| NMC0805Y5V685Z10TRPLPF | | | 6.8μF | Z | 16 | 14.7 | 15 | 1.45 | |
| NMC0805Y5V106Z10TRPLPF | 10μF | | Z | 30 | 5.0 | 15 | 1.45 | | |
| NMC0805Y5V155Z16TRPLPF | 16 | | 1.5μF | Z | 9 | 66.6 | 24 | 1.45 | |
| NMC0805Y5V225Z16TRPLPF | | | 2.2μF | Z | 12.5 | 22.7 | 24 | 1.45 | |
| NMC0805Y5V335Z16TRPLPF | | | 3.3μF | Z | 12.5 | 15.2 | 24 | 1.45 | |
| NMC0805Y5V475Z16TRPLPF | | | 4.7μF | Z | 9 | 10.6 | 24 | 1.45 | |
| NMC0805Y5V105Z25TRPLPF | 25 | | 1.0μF | Z | 9 | 50.0 | 37.5 | 1.45 | |
| NMC0805Y5V105Z50TRPLPF | 50 | | 1.0μF | Z | 9 | 50.0 | 75 | 1.45 | |
| NMC1206Y5V226Z6.3TRPLPF | 1206 | | 6.3 | 22μF | Z | 20 | 2.3 | 9.45 | 1.9 |
| NMC1206Y5V105Z10TRPLPF | | | | 10 | 1.0μF | Z | 12.5 | 100.0 | 15 |
| NMC1206Y5V155Z10TRPLPF | | | 1.5μF | | Z | 12.5 | 66.6 | 15 | 1.9 |
| NMC1206Y5V225Z10TRPLPF | | | 2.2μF | | Z | 12.5 | 45.4 | 15 | 1.9 |
| NMC1206Y5V335Z10TRPLPF | | | 3.3μF | | Z | 12.5 | 30.3 | 15 | 1.9 |
| NMC1206Y5V475Z10TRPLPF | | 4.7μF | Z | | 12.5 | 21.2 | 15 | 1.9 | |
| NMC1206Y5V685Z10TRPLPF | | 6.8μF | Z | | 16 | 14.7 | 15 | 1.9 | |
| NMC1206Y5V106Z10TRPLPF | | 10μF | Z | | 16 | 5.0 | 15 | 1.9 | |
| NMC1206Y5V226Z10TRPLPF | | 22μF | Z | | 20 | 2.3 | 15 | 1.9 | |
| NMC1206Y5V105Z16TRPLPF | | 16 | 1.0μF | Z | 12.5 | 50.0 | 24 | 1.9 | |
| NMC1206Y5V155Z16TRPLPF | | | 1.5μF | Z | 12.5 | 66.6 | 24 | 1.9 | |
| NMC1206Y5V225Z16TRPLPF | | | 2.2μF | Z | 12.5 | 22.7 | 24 | 1.9 | |
| NMC1206Y5V335Z16TRPLPF | | | 3.3μF | Z | 12.5 | 30.3 | 24 | 1.9 | |
| NMC1206Y5V475Z16TRPLPF | | | 4.7μF | Z | 12.5 | 10.6 | 24 | 1.9 | |
| NMC1206Y5V685Z16TRPLPF | | | 6.8μF | Z | 12.5 | 14.7 | 24 | 1.9 | |
| NMC1206Y5V106Z16TRPLPF | | 10μF | Z | 12.5 | 10.0 | 24 | 1.9 | | |
| NMC1206Y5V105Z25TRPLPF | | 25 | 1.0μF | Z | 7 | 100.0 | 37.5 | 1.9 | |
| NMC1206Y5V155Z25TRPLPF | | | 1.5μF | Z | 9 | 66.6 | 37.5 | 1.9 | |
| NMC1206Y5V225Z25TRPLPF | | | 2.2μF | Z | 9 | 22.7 | 37.5 | 1.9 | |
| NMC1206Y5V335Z25TRPLPF | | | 3.3μF | Z | 9 | 30.3 | 37.5 | 1.9 | |
| NMC1206Y5V475Z25TRPLPF | | | 4.7μF | Z | 9 | 10.6 | 37.5 | 1.9 | |

Y5V Continue on next page



Y5V PART NUMBERS AND SPECIFICATIONS

| Part Number | Case Size | Voltage (Vdc) | Cap. | Cap. Tol. | DF (%) | IR (MΩ) | DWV (Vdc) | Max. T (mm) | |
|-------------------------|-----------|---------------|-------|-----------|--------|---------|-----------|-------------|-----|
| NMC1206Y5V475Z35TRPLPF | 1206 | 35 | 4.7μF | Z | 7 | 21.2 | 52.5 | 1.9 | |
| NMC1206Y5V106Z35TRPLPF | | | 10μF | Z | 9 | 10.0 | 52.5 | 1.9 | |
| NMC1206Y5V105Z50TRPLPF | | 50 | 1.0μF | Z | 7 | 100.0 | 75 | 1.9 | |
| NMC1210Y5V226Z6.3TRPLPF | 1210 | 6.3 | 22μF | Z | 20 | 4.6 | 9.45 | 2.2 | |
| NMC1210Y5V476Z6.3TRPLPF | | | 47μF | Z | 20 | 2.1 | 9.45 | 2.2 | |
| NMC1210Y5V107Z6.3TRPLPF | | | 100μF | Z | 20 | 1.0 | 9.45 | 2.8 | |
| NMC1210Y5V105Z10TRPLPF | | 10 | 1.0μF | Z | 12.5 | 100.0 | 15 | 2.2 | |
| NMC1210Y5V155Z10TRPLPF | | | 1.5μF | Z | 12.5 | 66.6 | 15 | 2.2 | |
| NMC1210Y5V225Z10TRPLPF | | | 2.2μF | Z | 12.5 | 45.4 | 15 | 2.2 | |
| NMC1210Y5V335Z10TRPLPF | | | 3.3μF | Z | 12.5 | 30.3 | 15 | 2.2 | |
| NMC1210Y5V475Z10TRPLPF | | | 4.7μF | Z | 12.5 | 21.2 | 15 | 2.2 | |
| NMC1210Y5V685Z10TRPLPF | | | 6.8μF | Z | 12.5 | 14.7 | 15 | 2.2 | |
| NMC1210Y5V106Z10TRPLPF | | | 10μF | Z | 12.5 | 10.0 | 15 | 2.2 | |
| NMC1210Y5V226Z10TRPLPF | | | 22μF | Z | 16 | 4.6 | 15 | 2.2 | |
| NMC1210Y5V476Z10TRPLPF | | | 47μF | Z | 16 | 2.1 | 15 | 2.2 | |
| NMC1210Y5V105Z16TRPLPF | | | 16 | 1.0μF | Z | 12.5 | 100.0 | 24 | 2.2 |
| NMC1210Y5V155Z16TRPLPF | | | | 1.5μF | Z | 12.5 | 66.6 | 24 | 2.2 |
| NMC1210Y5V225Z16TRPLPF | | | | 2.2μF | Z | 12.5 | 45.4 | 24 | 2.2 |
| NMC1210Y5V335Z16TRPLPF | | | | 3.3μF | Z | 12.5 | 30.3 | 24 | 2.2 |
| NMC1210Y5V475Z16TRPLPF | | | | 4.7μF | Z | 12.5 | 21.2 | 24 | 2.2 |
| NMC1210Y5V685Z16TRPLPF | | 6.8μF | | Z | 12.5 | 14.7 | 24 | 2.2 | |
| NMC1210Y5V106Z16TRPLPF | | 10μF | | Z | 12.5 | 10.0 | 24 | 2.2 | |
| NMC1210Y5V226Z16TRPLPF | | 22μF | | Z | 12.5 | 4.6 | 24 | 2.2 | |
| NMC1210Y5V476Z16TRPLPF | | 47μF | | Z | 16 | 2.1 | 24 | 2.2 | |
| NMC1210Y5V105Z25TRPLPF | | 25 | | 1.0μF | Z | 9 | 100.0 | 37.5 | 2.2 |
| NMC1210Y5V155Z25TRPLPF | | | | 1.5μF | Z | 9 | 66.6 | 37.5 | 2.2 |
| NMC1210Y5V225Z25TRPLPF | | | | 2.2μF | Z | 9 | 45.4 | 37.5 | 2.2 |
| NMC1210Y5V335Z25TRPLPF | | | 3.3μF | Z | 9 | 30.3 | 37.5 | 2.2 | |
| NMC1210Y5V475Z25TRPLPF | | | 4.7μF | Z | 9 | 21.2 | 37.5 | 2.2 | |
| NMC1210Y5V685Z25TRPLPF | | | 6.8μF | Z | 9 | 14.7 | 37.5 | 2.2 | |
| NMC1210Y5V106Z25TRPLPF | | | 10μF | Z | 9 | 10.0 | 37.5 | 2.2 | |
| NMC1210Y5V106Z35TRPLPF | | | 35 | 10μF | Z | 7 | 10.0 | 52.5 | 2.2 |
| NMC1210Y5V105Z50TRPLPF | | 50 | 1.0μF | Z | 7 | 100.0 | 75 | 2.2 | |
| NMC1210Y5V225Z50TRPLPF | 2.2μF | | Z | 7 | 45.4 | 75 | 2.2 | | |
| NMC1210Y5V475Z50TRPLPF | 4.7μF | | Z | 7 | 21.2 | 75 | 2.2 | | |
| NMC1812Y5V105Z10TRPLPF | 1812 | 10 | 1.0μF | Z | 12.5 | 100.0 | 15 | 2.8 | |
| NMC1812Y5V155Z10TRPLPF | | | 1.5μF | Z | 12.5 | 66.6 | 15 | 2.8 | |
| NMC1812Y5V225Z10TRPLPF | | | 2.2μF | Z | 12.5 | 45.4 | 15 | 2.8 | |
| NMC1812Y5V335Z10TRPLPF | | | 3.3μF | Z | 12.5 | 30.3 | 15 | 2.8 | |
| NMC1812Y5V475Z10TRPLPF | | | 4.7μF | Z | 12.5 | 21.2 | 15 | 2.8 | |
| NMC1812Y5V685Z10TRPLPF | | | 6.8μF | Z | 12.5 | 14.7 | 15 | 2.8 | |
| NMC1812Y5V106Z10TRPLPF | | | 10μF | Z | 12.5 | 10.0 | 15 | 2.8 | |

Y5V Continue on next page

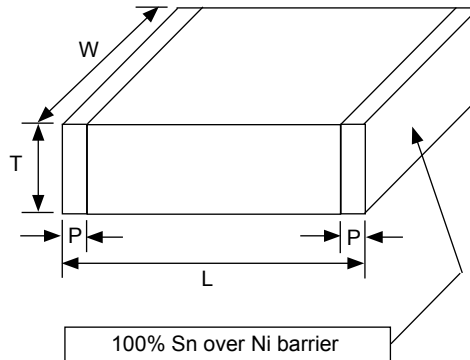


Y5V PART NUMBERS AND SPECIFICATIONS

| Part Number | Case Size | Voltage (Vdc) | Cap. | Cap. Tol. | DF (%) | IR (MΩ) | DWV (Vdc) | Max. T (mm) | |
|------------------------|-----------|---------------|-------|-----------|--------|---------|-----------|-------------|-------|
| NMC1812Y5V105Z16TRPLPF | 1812 | 16 | 1.0μF | Z | 9 | 100.0 | 24 | 2.8 | |
| NMC1812Y5V155Z16TRPLPF | | | 1.5μF | Z | 9 | 66.6 | 24 | 2.8 | |
| NMC1812Y5V225Z16TRPLPF | | | 2.2μF | Z | 9 | 45.4 | 24 | 2.8 | |
| NMC1812Y5V335Z16TRPLPF | | | 3.3μF | Z | 9 | 30.3 | 24 | 2.8 | |
| NMC1812Y5V475Z16TRPLPF | | | 4.7μF | Z | 9 | 21.2 | 24 | 2.8 | |
| NMC1812Y5V685Z16TRPLPF | | | 6.8μF | Z | 9 | 14.7 | 24 | 2.8 | |
| NMC1812Y5V106Z16TRPLPF | | | 10μF | Z | 9 | 10.0 | 24 | 2.8 | |
| NMC1812Y5V476Z16TRPLPF | | | 47μF | Z | 12.5 | 2.1 | 24 | 2.8 | |
| NMC1812Y5V105Z25TRPLPF | | 25 | 25 | 1.0μF | Z | 5 | 100.0 | 37.5 | 2.8 |
| NMC1812Y5V155Z25TRPLPF | | | | 1.5μF | Z | 5 | 66.6 | 37.5 | 2.8 |
| NMC1812Y5V225Z25TRPLPF | | | | 2.2μF | Z | 5 | 45.4 | 37.5 | 2.8 |
| NMC1812Y5V335Z25TRPLPF | | | | 3.3μF | Z | 5 | 30.3 | 37.5 | 2.8 |
| NMC1812Y5V475Z25TRPLPF | | | | 4.7μF | Z | 5 | 21.2 | 37.5 | 2.8 |
| NMC1812Y5V685Z25TRPLPF | | | | 6.8μF | Z | 5 | 14.7 | 37.5 | 2.8 |
| NMC1812Y5V106Z25TRPLPF | | | | 10μF | Z | 5 | 10.0 | 37.5 | 2.8 |
| NMC1812Y5V105Z50TRPLPF | | | | 50 | 50 | 1.0μF | Z | 5 | 100.0 |
| NMC1812Y5V155Z50TRPLPF | | 1.5μF | Z | | | 5 | 66.6 | 75 | 2.8 |
| NMC1812Y5V225Z50TRPLPF | | 2.2μF | Z | | | 5 | 45.4 | 75 | 2.8 |
| NMC1812Y5V335Z50TRPLPF | | 3.3μF | Z | | | 5 | 30.3 | 75 | 2.8 |
| NMC1812Y5V475Z50TRPLPF | | 4.7μF | Z | | | 5 | 21.2 | 75 | 2.8 |
| NMC1812Y5V685Z50TRPLPF | | 6.8μF | Z | | | 5 | 14.7 | 75 | 2.8 |

CASE SIZE DIMENSIONS (mm)

| EIA Case Size | 0201 | 0402 | 0603 | 0805 | 1206 | 1210 | 1812 | 2220 | 2225 |
|-----------------------|---|-------------|------------|-------------|-------------|-------------|------------|-----------|-------------|
| Length (L) | 0.6 ± 0.03 | 1.0 ± 0.05 | 1.6 ± 0.15 | 2.0 ± 0.2 | 3.2±0.2 | 3.2±0.2 | 4.5±0.4 | 5.7±0.4 | 5.7±0.4 |
| Width (W) | 0.3 ± 0.03 | 0.5 ± 0.05 | 0.8 ± 0.15 | 1.25 ± 0.2 | 1.6±0.2 | 2.5±0.2 | 3.2±0.3 | 5.0±0.4 | 6.35±0.25 |
| Thickness max. (T) | See Part Number and Specifications Tables | | | | | | | | |
| Termination Width (P) | 0.10 ~ 0.20 | 0.15 ~ 0.30 | 0.1 ~ 0.65 | 0.25 ~ 0.75 | 0.25 ~ 0.85 | 0.25 ~ 1.00 | 0.25 ~ 1.5 | 0.30 min. | 0.25 ~ 1.02 |



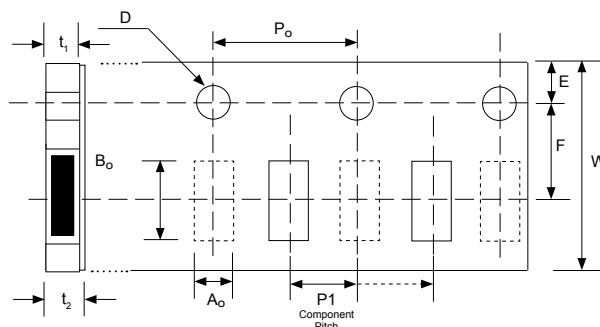
CARRIER TAPE MATERIAL

Parts with a thickness of >1mm will be taped on embossed plastic carrier. Parts with a thickness of less than 1mm will be taped on paper carrier

PUNCHED CARRIER TAPE DIMENSIONS (mm)

| Type | A ₀ | B ₀ | W | F | E | P1 | P0 | D0 | T1 max. | T2 max. | Mounting Hole |
|-------|----------------|----------------|-----------|------------|------------|------------|-----------|------------------|---------|---------|--------------------|
| 01005 | 0.25 ± 0.04 | 0.45 ± 0.04 | 8.0 ± 0.3 | 3.5 ± 0.05 | 1.75 ± 0.1 | 2.0 ± 0.05 | 4.0 ± 0.1 | 1.5 +0.1/-0.0 | 0.27 | 0.36 | Angular Punch Hole |
| 0201 | 0.37 ± 0.03 | 0.67 ± 0.05 | | | | | | | 0.45 | 0.80 | |
| 0402 | 0.65 ± 0.05 | 1.15 ± 0.05 | | | | 4.0 ± 0.10 | | | 1.1 | 1.4 | |
| 0603 | 1.1 ± 0.2 | 1.9 ± 0.2 | | | | | | | | | |
| 0805 | 1.65 ± 0.2 | 2.4 ± 0.2 | | | | | | | | | |
| 1206 | 2.0 ± 0.2 | 3.6 ± 0.2 | | | | | | | | | |

PUNCHED CARRIER TAPE



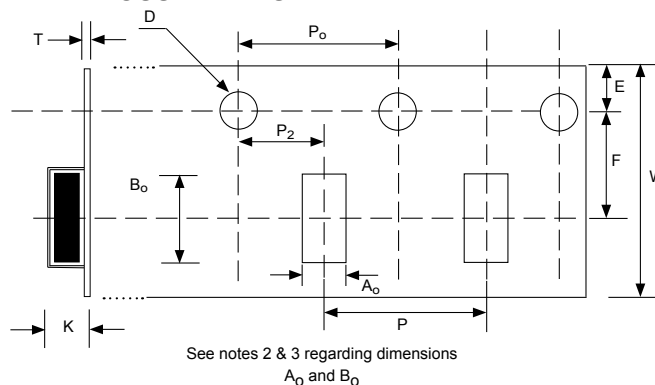
EMBOSSED PLASTIC CARRIER TAPE DIMENSIONS (mm)

| Tape Size | W | F | E | P ₀ | P ₂ | D | K max. | T max. | P |
|-----------|------------|------------|-------------|----------------|----------------|-------------------------------------|--------|--------|-----------|
| 8mm | 8.0 ± 0.2 | 3.5 ± 0.05 | 1.75 ± 0.10 | 4.0 ± 0.1 | 2.0 ± 0.5 | 1.5 ^{+0.1} _{-0.0} | 4.5 | 0.31 | 4.0 ± 0.1 |
| 12mm | 12.0 ± 0.2 | 5.5 ± 0.05 | | | | | | | 8.0 ± 0.1 |

Notes:

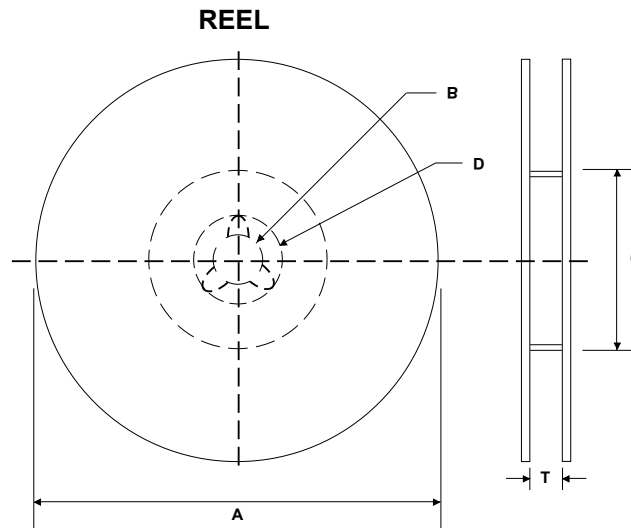
- Specifications are in compliance with EIA RS481-1-A
"Taping of surface Mount Components for Automatic Placement"
- Dimensions A₀ (max.) equals component width dimension plus 0.5mm
- Dimension B₀ (max.) equals component length dimension plus 0.5mm

EMBOSSED PLASTIC CARRIER TAPE



REEL DIMENSIONS (mm)

| Reel Diameter (A) | B | C | D | T max. |
|-------------------|----------|-----------|----------|----------------------------|
| 7" (178 ± 2.0) | 13 ± 0.5 | 50 min. | 21 ± 1.0 | 8.4 +1.0/-0 |
| 10" (250 ± 2.0) | | 100 ± 1.0 | | (1812 case size and larger |
| 13" (330 ± 2.0) | | 100 ± 1.0 | | 12.4 +2.0/-0) |



7 INCH REEL QUANTITIES*

| Size | 0201 | 0402 | 0603 | 0805 | 1206 | 1210 | 1812 | 2220 | 2225 |
|-------------------|--------|--------|-------|-------|-------|-------|-------|-------|-------|
| Tape Size | 8mm | 8mm | 8mm | 8mm | 8mm | 8mm | 12mm | 12mm | 12mm |
| Min. Qty Per Reel | 20,000 | 10,000 | 4,000 | 4,000 | 4,000 | 1,000 | 500 | 700 | 400 |
| Max. Qty Per Reel | 20,000 | 10,000 | 4,000 | 5,000 | 5,000 | 5,000 | 2,000 | 1,000 | 1,000 |

*Quantity dependent on chip thickness. Contact NIC for reel quantities on larger diameter reels.