

FEATURES

- STANDARD EIA 1206 & 0805 PACKAGING
- EACH COMPONENT CONTAINS 4 ISOLATED CERAMIC CAPACITORS
- AVAILABLE IN A WIDE RANGE OF VALUES AND TEMPERATURE COEFFICIENTS

RoHS Compliant

Includes all homogeneous materials

*See Part Number System for Details

| SPECIFICATIONS | NPO | X7R | X5R | Y5V |
|--|----------------------------------|------------------|------------------|-----------------|
| OPERATING TEMPERATURE | -55°C~ +125°C | -55°C~ +125°C | -55°C~ +85°C | -30°C~ +85°C |
| CAPACITANCE RANGE | 10pF ~ 1000pF | 100pF ~ 0.1μF | 0.1μF | 0.01μF ~ 0.33μF |
| VOLTAGE RANGE | SEE VALUES TABLES | | | |
| CAPACITANCE TOLERANCE | ±5% (J), ±10%(K) | ±10%(K), ±20%(M) | ±10%(K), ±20%(M) | +80%/-20% (Z) |
| TEMPERATURE CHARACTERISTICS | 0±30ppm | ±15% | ±15% | +30% ~ -80% |
| DIELECTRIC WITHSTANDING VOLTAGE | 2.5 x Rated Voltage for 1 minute | | | |
| INSULATION RESISTANCE (after 1 minute) | >100GΩ | >10GΩ | >10GΩ | >10GΩ |
| DISSIPATION FACTOR | ≤ 0.1% | ≤ 5% | ≤ 5% | ≤ 7% |

STANDARD VALUES AND VOLTAGES

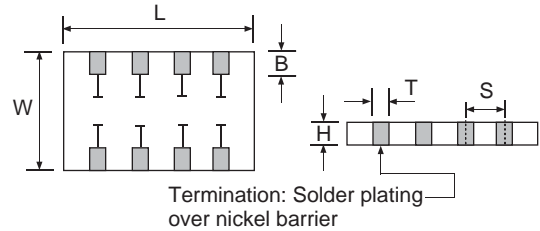
| Cap. | NPO | | | | X7R | | | | | Y5V | | |
|---------|-----------------------|----|----|-----|-----|----|----|----|-----|-----|----|----|
| | Working Voltage (Vdc) | | | | | | | | | | | |
| | 16 | 25 | 50 | 100 | 10 | 16 | 25 | 50 | 100 | 16 | 25 | 50 |
| 10pF | ‡ | ‡ | ‡ | ‡ | | | | | | | | |
| 22pF | ‡ | ‡ | ‡ | ‡ | | | | | | | | |
| 33pF | ‡ | ‡ | ‡ | ‡ | | | | | | | | |
| 47pF | ‡ | ‡ | ‡ | ‡ | | | | | | | | |
| 68pF | ‡ | ‡ | ‡ | ‡ | | | | | | | | |
| 82pF | ‡ | ‡ | ‡ | ‡ | | | | | | | | |
| 100pF | ‡ | ‡ | ‡ | ‡ | | □ | □ | | | | | |
| 220pF | ‡ | ‡ | ‡ | ‡ | | □ | □ | | | | | |
| 330pF | ‡ | ‡ | ‡ | ‡ | | □ | □ | ‡ | | | | |
| 470pF | ‡ | ‡ | ‡ | | | ‡ | ‡ | ‡ | ‡ | | | |
| 680pF | ‡ | ‡ | | | | ‡ | ‡ | ‡ | ‡ | | | |
| 820pF | ‡ | ‡ | | | | ‡ | ‡ | ‡ | ‡ | | | |
| .001μF | ‡ | ‡ | | | | ‡ | ‡ | ‡ | ‡ | | | |
| .0022μF | | | | | | ‡ | ‡ | ‡ | ‡ | | | |
| .0033μF | | | | | | ‡ | □ | ‡ | ‡ | | | |
| .0047μF | | | | | | ‡ | □ | ‡ | ‡ | | | |
| .0068μF | | | | | | ‡ | □ | ‡ | ‡ | | | |
| .0082μF | | | | | | ‡ | ‡ | ‡ | ‡ | | | |
| .01μF | | | | | | □ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ |
| .022μF | | | | | | □ | ‡ | ‡ | ‡ | | ‡ | ‡ |
| .033μF | | | | | | □ | ‡ | ‡ | ‡ | | ‡ | ‡ |
| .047μF | | | | | | □ | ‡ | ‡ | | | ‡ | ‡ |
| .068μF | | | | | | □ | ‡ | ‡ | | | ‡ | ‡ |
| .082μF | | | | | | □ | ‡ | | | | ‡ | ‡ |
| 0.1μF | | | | | | □* | ‡ | | | | ‡ | ‡ |

0805 Values □ 1206 Values ‡

* X5R TC -55°C ~ +85°C

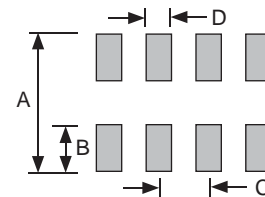
PART DIMENSIONS (mm)

| Series | NCA0805 | NCA1206 |
|--------|-------------|-------------|
| L | 2.00 ± 0.20 | 3.20 ± 0.20 |
| W | 1.25 ± 0.20 | 1.60 ± 0.20 |
| H | 1.00 max. | 1.30 max. |
| S | 0.50 ± 0.10 | 0.80 ± 0.20 |
| T | 0.28 ± 0.10 | 0.40 ± 0.10 |
| B | 0.25 ± 0.15 | 0.30 ± 0.20 |

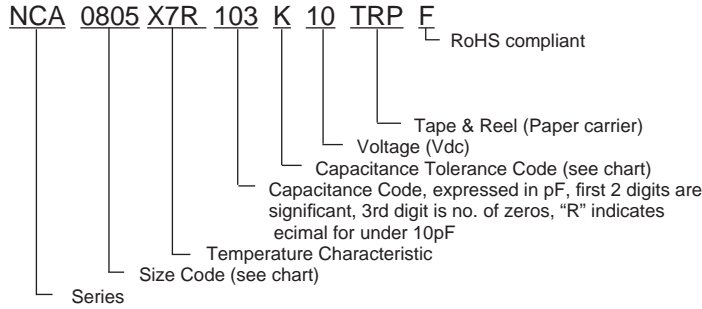


RECOMMENDED LAND PATTERN (mm)

| Series | A | B | C | D |
|---------|-------------|-------------|------------|-------------|
| NCA0805 | 1.65 ± 0.10 | 0.55 ± 0.05 | 0.5 ± 0.05 | 0.25 ± 0.05 |
| NCA1206 | 2.60 ± 0.10 | 0.80 ± 0.05 | 0.8 ± 0.10 | 0.45 ± 0.1 |



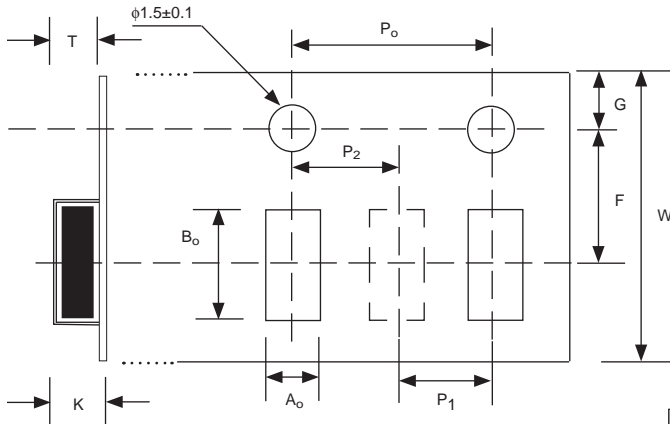
PART NUMBER SYSTEM



TAPE DIMENSIONS (mm)

| A ₀ | B ₀ | F | G | K | P ₀ | P ₁ | P ₂ | T | W |
|----------------|----------------|------------|-----------|-----------|----------------|----------------|----------------|----------|----------|
| See note 1 | | 3.50 ±0.05 | 1.75 ±0.1 | 2.50 max. | 4.0 ±0.1 | 4.0 ±0.1 | 2.0 ±0.05 | 0.6 max. | 8.0 ±0.3 |

Note 1 - These dimensions are determined by the maximum dimensions of the part. Clearance between the sides of the components shall be 0.05mm (min.) and 0.50mm (max). The clearance shall not allow the component to rotate more than 20° within the carrier cavity.



REEL DIMENSIONS (mm)

| A | B | C | D | E | W |
|-----------|---------|------------|-----------|----------|-----------|
| 178 ± 2.0 | 50 min. | 13.0 ± 0.2 | 20.2 min. | 1.5 min. | 8.4 ± 1.0 |

