

# CERAMIC CAPACITOR ENGINEERING DESIGN KITS

Johanson Dielectrics, Inc. offers a variety of multi-layer chip capacitor sample kits for proto-type design work. Each kit is grouped by type, size, or voltage and contains a selection of popular values and tolerances. The chips are individually packaged in labeled plastic compartments for easy access. The general range of kit contents is described below. Specific part number details may be found at [JohansonDielectrics.com](http://JohansonDielectrics.com)



| 0402 CERAMIC CHIP CAPACITOR KIT                                     |                  |               |                   |             | P/N: S-0402 |
|---------------------------------------------------------------------|------------------|---------------|-------------------|-------------|-------------|
| 1400 piece sample assortment of selected values from 1.0pF to 0.1μF |                  |               |                   |             |             |
| Chip Size                                                           | Voltage Rating   | Dielectric    | Capacitance Range | Qty / Value | Total Qty   |
| 0402                                                                | 50 VDC - 6.3 VDC | NPO, X7R, Y5V | 1.0pF to 0.22μF   | 50 pcs      | 1400 pcs    |

  

| 0603 CERAMIC CHIP CAPACITOR KIT                                     |                 |               |                   |             | P/N: S-0603 |
|---------------------------------------------------------------------|-----------------|---------------|-------------------|-------------|-------------|
| 1400 piece sample assortment of selected values from 1.0pF to 0.1μF |                 |               |                   |             |             |
| Chip Size                                                           | Voltage Rating  | Dielectric    | Capacitance Range | Qty / Value | Total Qty   |
| 0603                                                                | 50 VDC - 16 VDC | NPO, X7R, Y5V | 10pF to 0.22μF    | 50 pcs      | 1400 pcs    |

  

| 0805 CERAMIC CHIP CAPACITOR KIT                                     |                  |            |                   |             | P/N: S-0805 |
|---------------------------------------------------------------------|------------------|------------|-------------------|-------------|-------------|
| 1400 piece sample assortment of selected values from 1.0pF to 0.1μF |                  |            |                   |             |             |
| Chip Size                                                           | Voltage Rating   | Dielectric | Capacitance Range | Qty / Value | Total Qty   |
| 0805                                                                | 100 VDC - 16 VDC | NPO, X7R   | 10pF to 0.47μF    | 50 pcs      | 1400 pcs    |

  

| TANCERAM® HIGH CAPACITANCE CERAMIC CHIP CAPACITOR KIT              |                  |            |                   |             | P/N: S-TAN-X5R |
|--------------------------------------------------------------------|------------------|------------|-------------------|-------------|----------------|
| 500 piece sample assortment of selected values from 1.0μF to 100μF |                  |            |                   |             |                |
| Chip Size                                                          | Voltage Rating   | Dielectric | Capacitance Range | Qty / Value | Total Qty      |
| 0402, 0603, 0805<br>1206, 1210                                     | 25 VDC - 6.3 VDC | X5R        | 1.0μF - 100μF     | 10 - 25 pcs | 500 pcs        |

  

| 500 VDC CERAMIC CHIP CAPACITOR KIT                                |                |            |                   |             | P/N: S-500 |
|-------------------------------------------------------------------|----------------|------------|-------------------|-------------|------------|
| 400 piece sample assortment of selected values from 33pF to 0.1μF |                |            |                   |             |            |
| Chip Size                                                         | Voltage Rating | Dielectric | Capacitance Range | Qty / Value | Total Qty  |
| 0805 - 1812                                                       | 500 VDC        | NPO, X7R   | 33pF to 0.1μF     | 10-20 pcs   | 400 pcs    |

  

| 1000 VDC CERAMIC CHIP CAPACITOR KIT                               |                |            |                   |             | P/N: S-1KV |
|-------------------------------------------------------------------|----------------|------------|-------------------|-------------|------------|
| 400 piece sample assortment of selected values from 22pF to 0.1μF |                |            |                   |             |            |
| Chip Size                                                         | Voltage Rating | Dielectric | Capacitance Range | Qty / Value | Total Qty  |
| 0805 - 2225                                                       | 1000 VDC       | NPO, X7R   | 22pF to 0.1μF     | 10-20 pcs   | 400 pcs    |

*Johanson may from time-to-time adjust actual kit contents based on design demand trends.  
Check the Johanson web site for design kit updates and kit content changes.*



| 2000 VDC CERAMIC CHIP CAPACITOR KIT                                 |                |            |                   |             | P/N: S-2KV |
|---------------------------------------------------------------------|----------------|------------|-------------------|-------------|------------|
| 300 piece sample assortment of selected values from 22pF to 0.022μF |                |            |                   |             |            |
| Chip Size                                                           | Voltage Rating | Dielectric | Capacitance Range | Qty / Value | Total Qty  |
| 1206 - 2225                                                         | 2000 VDC       | NPO, X7R   | 22pF to 0.022μF   | 10-20 pcs   | 300 pcs    |

| X2/Y3 SAFETY CERTIFIED CERAMIC CHIP CAPACITOR KIT                   |                 |            |                   |             | P/N: S-SY3 |
|---------------------------------------------------------------------|-----------------|------------|-------------------|-------------|------------|
| 240 piece sample assortment of selected values from 10pF to 1500 pF |                 |            |                   |             |            |
| Chip Size                                                           | Voltage Rating  | Dielectric | Capacitance Range | Qty / Value | Total Qty  |
| 1808                                                                | 3KV DC / 250 AC | NPO, X7R   | 10pF to 1500 pF   | 20 pcs      | 240 pcs    |

| X1/Y2 SAFETY CERTIFIED CERAMIC CHIP CAPACITOR KIT                   |                 |            |                   |             | P/N: S-SY2 |
|---------------------------------------------------------------------|-----------------|------------|-------------------|-------------|------------|
| 200 piece sample assortment of selected values from 10pF to 2200 pF |                 |            |                   |             |            |
| Chip Size                                                           | Voltage Rating  | Dielectric | Capacitance Range | Qty / Value | Total Qty  |
| 1808 - 2220                                                         | 5KV DC / 250 AC | NPO, X7R   | 10pF to 2200pF    | 20 pcs      | 200 pcs    |

| X2Y® EMI FILTER CAPACITOR KIT - 0402 SIZE                           |                |            |                   |             | P/N: S-X07CBK |
|---------------------------------------------------------------------|----------------|------------|-------------------|-------------|---------------|
| 600 piece sample assortment of selected values from 1.0pF to 0.01μF |                |            |                   |             |               |
| Chip Size                                                           | Voltage Rating | Dielectric | Capacitance Range | Qty / Value | Total Qty     |
| 0402                                                                | 10 - 50 VDC    | NPO, X7R   | 1.0pF to 0.01μF   | 50 pcs      | 600 pcs       |

| X2Y® EMI FILTER CAPACITOR KIT - 0603 SIZE                           |                |            |                   |             | P/N: S-X14CBK |
|---------------------------------------------------------------------|----------------|------------|-------------------|-------------|---------------|
| 700 piece sample assortment of selected values from 1.0pF to 0.01μF |                |            |                   |             |               |
| Chip Size                                                           | Voltage Rating | Dielectric | Capacitance Range | Qty / Value | Total Qty     |
| 0603                                                                | 50 - 100 VDC   | NPO, X7R   | 1.0pF to 0.01μF   | 50 pcs      | 700 pcs       |

| X2Y® POWER BYPASS CAPACITOR KIT - 0603 SIZE                        |                |            |                   |             | P/N: S-X14-PBP |
|--------------------------------------------------------------------|----------------|------------|-------------------|-------------|----------------|
| 300 piece sample assortment of selected values from 1.0nF to 1.0μF |                |            |                   |             |                |
| Chip Size                                                          | Voltage Rating | Dielectric | Capacitance Range | Qty / Value | Total Qty      |
| 0603                                                               | 6.3 - 100 VDC  | X7R, X5R   | 1.0nF to 1.0μF    | 20 pcs      | 300 pcs        |

| X2Y® EMI FILTER CAPACITOR KIT - 0805 SIZE                           |                |            |                   |             | P/N: S-X15-EMI |
|---------------------------------------------------------------------|----------------|------------|-------------------|-------------|----------------|
| 300 piece sample assortment of selected values from 1.0pF to 0.01μF |                |            |                   |             |                |
| Chip Size                                                           | Voltage Rating | Dielectric | Capacitance Range | Qty / Value | Total Qty      |
| 0805                                                                | 50 - 100 VDC   | NPO, X7R   | 1.0pF to 0.01μF   | 20 pcs      | 300 pcs        |

| X2Y® DC MOTOR FILTER CAPACITOR KIT                                   |                |            |                   |             | P/N: S-X2Y-MTR |
|----------------------------------------------------------------------|----------------|------------|-------------------|-------------|----------------|
| 300 piece sample assortment of selected values from 0.10μF to 0.47μF |                |            |                   |             |                |
| Chip Size                                                            | Voltage Rating | Dielectric | Capacitance Range | Qty / Value | Total Qty      |
| 1206 - 1812                                                          | 100 VDC        | X7R        | 0.10μF to 0.47μF  | 30 pcs      | 300 pcs        |

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