

# How to Order

## Part Number Explanation

### Commercial Surface Mount Chips

**EXAMPLE: 08055A101JAT2A**

| 0805                     | 5              | A                 | 101                                                                            | J*                            | A                   | T                                 | 2                                    | A**                                              |
|--------------------------|----------------|-------------------|--------------------------------------------------------------------------------|-------------------------------|---------------------|-----------------------------------|--------------------------------------|--------------------------------------------------|
| <b>Size</b><br>(L" x W") | <b>Voltage</b> | <b>Dielectric</b> | <b>Capacitance</b>                                                             | <b>Tolerance</b>              | <b>Failure Rate</b> | <b>Terminations</b>               | <b>Packaging</b>                     | <b>Special Code</b>                              |
| 0101*                    | 4 = 4V         | A = NP0(C0G)      | 2 Sig. Fig + No. of Zeros                                                      | B = $\pm 10$ pF               | A = N/A             | T = Plated Ni and Sn              | Available                            | A = Std                                          |
| 0201                     | 6 = 6.3V       | C = X7R           | Examples:                                                                      | C = $\pm 25$ pF               | 4 = Automotive      | 7 = Gold Plated                   | 2 = 7" Reel                          | K = 30K (0603 2mm pitch)                         |
| 0402                     | Z = 10V        | D = X5R           | 100 = 10 pF                                                                    | D = $\pm 50$ pF               |                     | U = Conductive                    | 4 = 13" Reel                         | 22K (0805/1206                                   |
| 0603                     | Y = 16V        | F = X8R           | 101 = 100 pF                                                                   | F = $\pm 1\%$ ( $\geq 10$ pF) |                     | Expoxy for Hybrid Applications    | U = 4mm TR (01005)                   | <0.030" / 0.76mm)                                |
| 0805                     | 3 = 25V        | G = Y5V           | 102 = 1000 pF                                                                  | G = $\pm 2\%$ ( $\geq 10$ pF) |                     | Z = FLEXITERM®                    |                                      | H = 18K (0603/0805/1206                          |
| 1206                     | D = 35V        | U = U Series      | 223 = 22000 pF                                                                 | J = $\pm 5\%$                 |                     | *X = FLEXITERM®                   | <b>Contact Factory For Multiples</b> | <0.037" / 0.94mm)                                |
| 1210                     | 5 = 50V        | W = X6S           | 224 = 220000 pF                                                                | K = $\pm 10\%$                |                     | with 5% min lead (X7R & X8R only) |                                      | J = 15K (0805/1206                               |
| 1812                     | 1 = 100V       | Z = X7S           | 105 = 1 $\mu$ F                                                                | M = $\pm 20\%$                |                     |                                   |                                      | <0.050" / 1.27mm)                                |
| 1825                     | 2 = 200V       |                   | 106 = 10 $\mu$ F                                                               | Z = +80%, -20%                |                     |                                   |                                      | 1 = 12K (0805/1206                               |
| 2220                     | 7 = 500V       |                   | 107 = 100 $\mu$ F                                                              | P = +100%, -0%                |                     |                                   |                                      | <0.055" / 1.4mm)                                 |
| 2225                     |                |                   | For values below 10 pF, use "R" in place of Decimal point, e.g., 9.1 pF = 9R1. |                               |                     |                                   |                                      | **Non std options upon approval from the factory |

#### Contact Factory for Special Voltages

F = 63V 9 = 300V  
E = 150V 8 = 400V  
V = 250V

#### Contact Factory For 1 = Pd/Ag Term

\* B, C & D tolerance for  $\leq 10$  pF values.

Standard Tape and Reel material (Paper/Embossed) depends upon chip size and thickness.

See individual part tables for tape material type for each capacitance value.

NOTE: Contact factory for availability of Termination and Tolerance Options for Specific Part Numbers.

For Tin/Lead Terminations, please refer to LD Series

### High Voltage MLC Chips

**EXAMPLE: 1808AA271KAT2A**

| 1808             | A              | A                              | 271                                   | K                            | A                   | T                           | 2                         | A                   |
|------------------|----------------|--------------------------------|---------------------------------------|------------------------------|---------------------|-----------------------------|---------------------------|---------------------|
| <b>AVX Style</b> | <b>Voltage</b> | <b>Temperature Coefficient</b> | <b>Capacitance Code</b>               | <b>Capacitance Tolerance</b> | <b>Failure Rate</b> | <b>Termination</b>          | <b>Packaging/ Marking</b> | <b>Special Code</b> |
| 0805             | C = 600V/630V  | A = C0G                        | (2 significant digits + no. of zeros) | J = $\pm 5\%$                | A = Not Applicable  | 1 = Pd/Ag                   | 2 = 7" Reel               | A = Standard        |
| 1206             | A = 1000V      | C = X7R                        | Examples:                             | K = $\pm 10\%$               |                     | T = Plated Ni and Sn        | 4 = 13" Reel              |                     |
| 1210             | S = 1500V      |                                | 10 pF = 100                           | M = $\pm 20\%$               |                     | B = 5% Min Pb               |                           |                     |
| 1808             | G = 2000V      |                                | 100 pF = 101                          | K = $\pm 10\%$               |                     | Z = FLEXITERM®              |                           |                     |
| 1812             | W = 2500V      |                                | 1,000 pF = 102                        | M = $\pm 20\%$               |                     | *X = FLEXITERM®             |                           |                     |
| 1825             | H = 3000V      |                                | 22,000 pF = 223                       | Z = +80%, -20%               |                     | with 5% min lead (X7R only) |                           |                     |
| 2220             | J = 4000V      |                                | 220,000 pF = 224                      |                              |                     |                             |                           |                     |
| 2225             | K = 5000V      |                                | 1 $\mu$ F = 105                       |                              |                     |                             |                           |                     |
| 3640             |                |                                |                                       |                              |                     |                             |                           |                     |

NOTE: Contact factory for availability of Termination and Tolerance Options for Specific Part Numbers.

For Tin/Lead Terminations, please refer to LD Series

**\* Not RoHS Compliant**



For RoHS compliant products, please select correct termination style.

# How to Order

## Part Number Explanation

### Capacitor Array

**EXAMPLE: W2A43C103MAT2A**

| W                                    | 2                                                    | A            | 4                     | 3                                                                      | C                                                  | 103                                                               | M                                                                                 | A                                                       | T                                                                                                                         | 2A                                                                                                          |
|--------------------------------------|------------------------------------------------------|--------------|-----------------------|------------------------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>Style</b><br>W = RoHS<br>L = SnPb | <b>Case Size</b><br>1 = 0405<br>2 = 0508<br>3 = 0612 | <b>Array</b> | <b>Number of Caps</b> | <b>Voltage</b><br>Z = 10V<br>Y = 16V<br>3 = 25V<br>5 = 50V<br>1 = 100V | <b>Dielectric</b><br>A = NP0<br>C = X7R<br>D = X5R | <b>Capacitance Code (In pF)</b><br>2 Sig Digits + Number of Zeros | <b>Capacitance Tolerance</b><br>J = $\pm 5\%$<br>K = $\pm 10\%$<br>M = $\pm 20\%$ | <b>Failure Rate</b><br>A = Commercial<br>4 = Automotive | <b>Termination Code</b><br>T = Plated Ni and Sn<br>Z = FLEXITERM®<br>*B = 5% min lead<br>*X = FLEXITERM® with 5% min lead | <b>Packaging &amp; Quantity Code</b><br>2A = 7" Reel (4000)<br>4A = 13" Reel (10000)<br>2F = 7" Reel (1000) |

NOTE: Contact factory for availability of Termination and Tolerance Options for Specific Part Numbers.

### Low Inductance Capacitors (LICC)

**EXAMPLE: 0612ZD105MAT2A**

| 0612                                                           | Z                                                                      | D                                       | 105                                                                | M                                                                | A                              | T                                                               | 2                                                         | A                                         |
|----------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------------|--------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------|
| <b>Size</b><br>0306<br>0508<br>0612<br>*LD16<br>*LD17<br>*LD18 | <b>Voltage</b><br>6 = 6.3V<br>Z = 10V<br>Y = 16V<br>3 = 25V<br>5 = 50V | <b>Dielectric</b><br>C = X7R<br>D = X5R | <b>Capacitance Code (In pF)</b><br>2 Sig. Digits + Number of Zeros | <b>Capacitance Tolerance</b><br>K = $\pm 10\%$<br>M = $\pm 20\%$ | <b>Failure Rate</b><br>A = N/A | <b>Terminations</b><br>T = Plated Ni and Sn<br>*B = 5% min lead | <b>Packaging Available</b><br>2 = 7" Reel<br>4 = 13" Reel | <b>Thickness</b><br>See Page 97 for Codes |

NOTE: Contact factory for availability of Termination and Tolerance Options for Specific Part Numbers.

### Interdigitated Capacitors (IDC)

**EXAMPLE: W3L16D225MAT3A**

| W                                    | 3                                        | L                                                 | 1                                             | 6                                                          | D                                       | 225                                                                | M                                              | A                              | T                                                              | 3                                                         | A                                                                                   |
|--------------------------------------|------------------------------------------|---------------------------------------------------|-----------------------------------------------|------------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------|------------------------------------------------|--------------------------------|----------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Style</b><br>W = RoHS<br>L = SnPb | <b>Case Size</b><br>2 = 0508<br>3 = 0612 | <b>Low Inductance</b><br>ESL = 50pH<br>ESL = 60pH | <b>Number of Terminals</b><br>1 = 8 Terminals | <b>Voltage</b><br>4 = 4V<br>6 = 6.3V<br>Z = 10V<br>Y = 16V | <b>Dielectric</b><br>C = X7R<br>D = X5R | <b>Capacitance Code (In pF)</b><br>2 Sig. Digits + Number of Zeros | <b>Capacitance Tolerance</b><br>M = $\pm 20\%$ | <b>Failure Rate</b><br>A = N/A | <b>Termination</b><br>T = Plated Ni and Sn<br>*B = 5% min lead | <b>Packaging Available</b><br>1 = 7" Reel<br>3 = 13" Reel | <b>Thickness Max. Thickness</b><br>mm (in.)<br>A = 0.95 (0.037)<br>S = 0.55 (0.022) |

NOTE: Contact factory for availability of Termination and Tolerance Options for Specific Part Numbers.

### Low Inductance Decoupling Capacitor Arrays (LICA)

**EXAMPLE: LICA3T183M3FC4AA**

| LICA                                                    | 3                                              | T                                                              | 102                                                                           | M                                                         | 3                                                                                             | F                                                                                                                              | C                                                                                                                                                                                                                                                          | 4                                                       | A                                                                             | A                                                                                      |
|---------------------------------------------------------|------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>Style &amp; Size</b><br>5V = 9<br>10V = Z<br>25V = 3 | <b>Voltage</b><br>5V = 9<br>10V = Z<br>25V = 3 | <b>Dielectric</b><br>D = X5R<br>T = T55T<br>S = High K<br>T55T | <b>Cap/Section (EIA Code)</b><br>102 = 1000 pF<br>103 = 10 nF<br>104 = 100 nF | <b>Capacitance Tolerance</b><br>M = $\pm 20\%$<br>P = GMV | <b>Height Code</b><br>6 = 0.500mm<br>3 = 0.650mm<br>1 = 0.875mm<br>5 = 1.100mm<br>7 = 1.600mm | <b>Termination</b><br>*F = C4 Solder Balls-97Pb/3Sn<br>H = C4 Solder Balls-Low ESR<br>P = Cr-Cu-Au<br>N = Cr-Ni-Au<br>X = None | <b>Reel Packaging</b><br>M = 7" Reel<br>R = 13" Reel<br>6 = 2"x2" Waffle Pack<br>8 = 2"x2" Black Waffle Pack<br>7 = 2"x2" Waffle Pack w/termination facing up<br>A = 2"x2" Black Waffle Pack w/termination facing up<br>C = 4"x4" Waffle Pack w/ clear lid | <b># of Caps/Part</b><br>1 = one<br>2 = two<br>4 = four | <b>Inspection Code</b><br>A = Standard<br>B = Established Reliability Testing | <b>Code Face</b><br>A = Bar<br>B = No Bar<br>C = Dot, S55S Dielectrics<br>D = Triangle |

\* **Not RoHS Compliant**



NOTE: Contact factory for availability of Termination and Tolerance Options for Specific Part Numbers.