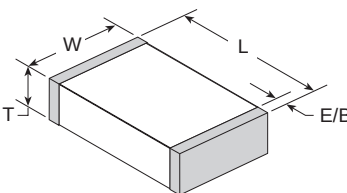


# SURFACE MOUNT MLCCs 10 - 200 VDC

| CASE SIZE |        |        | Voltage | AVAILABLE CAPACITANCE CODE |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----------|--------|--------|---------|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| JDI       | Inches | (mm)   |         | 0R5                        | XRX | 100 | 120 | 150 | 180 | 220 | 270 | 330 | 390 | 470 | 560 | 680 | 820 | 101 | 121 | 151 | 181 | 221 | 271 | 331 | 391 | 471 | 561 | 681 | 821 | 102 |  |
| R05       | 0201   | (0603) |         |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 25V     |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 16V     |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 10V     |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| R07       | 0402   | (1005) | 50V     |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 25V     |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 16V     |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 10V     |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| R14       | 0603   | (1608) | 200V    |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 100V    |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 50V     |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 25V     |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 16V     |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| R15       | 0805   | (2012) | 200V    |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 100V    |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 50V     |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 25V     |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 16V     |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| R18       | 1206   | (3216) | 200V    |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 100V    |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 50V     |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 25V     |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| S41       | 1210   | (3224) | 200V    |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 100V    |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 50V     |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 25V     |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 16V     |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| S43       | 1812   | (4532) | 200V    |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 100V    |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 50V     |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|           |        |        | 25V     |                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |

Diagram of a rectangular capacitor showing dimensions: L (Length), W (Width), T (Thickness), and E/B (End View).

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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## How To ORDER - SURFACE MOUNT MLCC

Part number written: 100R07W104KV4E

| 100                                                                                                  | R 07                                                                                           | W                             | 104                                                                                                                                                     | K                                                                                                                                                    | V                                                                | 4                                                                                  | E                                                                                                                                                                                 |
|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VOLTAGE                                                                                              | SERIES/SIZE                                                                                    | DIELECTRIC                    | CAPACITANCE                                                                                                                                             | TOLERANCE                                                                                                                                            | TERMINATION                                                      | MARKING                                                                            | PACKING                                                                                                                                                                           |
| 100 = 10 V DC<br>160 = 16 V DC<br>250 = 25 V DC<br>500 = 50 V DC<br>101 = 100 V DC<br>201 = 200 V DC | R05 = 0201<br>R07 = 0402<br>R14 = 0603<br>R15 = 0805<br>R18 = 1206<br>S41 = 1210<br>S43 = 1812 | N = NP0<br>W = X7R<br>X = X5R | 1st two digits are significant; third digit denotes number of zeros, R = decimal.<br><br>5R6 = 5.6 pF<br>100 = 10 pF<br>102 = 1,000 pF<br>474 = 0.47 μF | * B = ± 0.10 pF<br>* C = ± 0.25 pF<br>* D = ± 0.50 pF<br>F = ± 1 %<br>G = ± 2 %<br>J = ± 5 %<br>K = ± 10 %<br>M = ± 20 %<br><br>*Values < 10 pF only | V = Nickel Barrier with 100% Tin Plating (Matte)<br><br>T = SnPb | 3 = Special<br>4 = Unmarked<br>6 = EIA Code*<br><br>*Not available on sizes ≤ 0402 | E = Embossed 7"<br>T = Punched 7"<br>U = Embossed 13"<br>R = Punched 13"<br>No code = bulk<br><br>Tape specifications on page 48. Not all tape styles are available on all parts. |



See Tanceram High  
Capacitance Series  
for values  $\geq 1.0\mu\text{F}$

## ELECTRICAL CHARACTERISTICS

Please refer to page 78 of the catalog or [www.johanson-dielectrics.com](http://www.johanson-dielectrics.com)