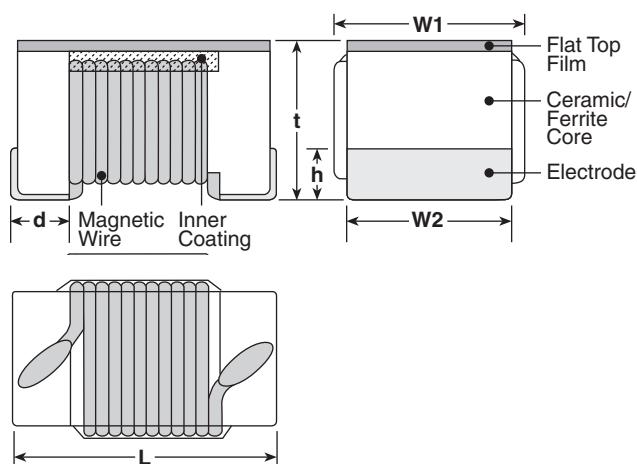


## features

- Surface mount
- Operating temperature: -40°C ~ +125°C
- Flat top suitable for high speed pick-and-place components
- Excellent high frequency applications
- High Q factors and self-resonant frequency values
- Marking: White body color with no marking (0402)  
Black body color with white marking (0603, 0805, 1008)
- Products with lead-free terminations meet EU RoHS requirements
- AEC-Q200 Qualified

## dimensions and construction



| Size Code | Dimensions inches (mm) |                                         |                         |                                                                             |                          |                         |
|-----------|------------------------|-----------------------------------------|-------------------------|-----------------------------------------------------------------------------|--------------------------|-------------------------|
|           | L                      | W1                                      | W2                      | t                                                                           | h                        | d                       |
| KQT0402   | .039±.004<br>(1.0±0.1) | .02±.004<br>(0.5±0.1)                   | .02±.004<br>(0.5±0.1)   | .022±.004<br>(0.55±0.1)                                                     | .006±.004<br>(0.15±0.1)  | .01±.004<br>(0.25±0.1)  |
| KQ0603    | .063±.004<br>(1.6±0.1) | .039±.004<br>(1.0±0.1)                  | .033±.004<br>(0.85±0.1) | .035±.004<br>(0.9±0.1)                                                      | .01±.006<br>(0.25±0.15)  | .014±.004<br>(0.35±0.1) |
| KQ0805    | .079±.008<br>(2.0±0.2) | .059±.008<br>(1.5±0.2)<br>(3.3nH-390nH) | .053±.004<br>(1.35±0.1) | .051±.008<br>(1.3±0.2)                                                      | .016±.006<br>(0.40±0.15) | .018±.004<br>(0.45±0.1) |
|           |                        | .063±.008<br>(1.6±0.2)<br>(470nH-820nH) |                         |                                                                             |                          |                         |
| KQ1008    | .098±.008<br>(2.5±0.2) | .087±.008<br>(2.2±0.2)                  | .079±.004<br>(2.0±0.1)  | .071 <sup>+.008</sup> <sub>-0</sub><br>(1.8 <sup>+.02</sup> <sub>-0</sub> ) | .018±.006<br>(0.45±0.15) | .018±.004<br>(0.45±0.1) |

## ordering information

| New Part # | KQ        | 1008                                      | T                             | TE                                                                                                                                                                          | 10N                                                                      | J                                                                                       |
|------------|-----------|-------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Type       | KQ<br>KQT | Size Code<br>0402<br>0603<br>0805<br>1008 | Termination Material<br>T: Sn | Packaging<br>TP: 2mm pitch paper (0402: 10,000 pieces/reel)<br>TD: 7" paper tape (0402: 2,000 pieces/reel)<br>TE: 7" embossed plastic (0603, 0805, 1008: 2,000 pieces/reel) | Nominal Inductance<br>3 digits:<br>10N: 10nH<br>R10: 0.1μH<br>1R0: 1.0μH | Tolerance<br>B: ±0.1nH<br>C: ±0.2nH<br>G: ±2%<br>H: ±3%<br>J: ±5%<br>K: ±10%<br>M: ±20% |

For further information on packaging, please refer to Appendix A.

## applications and ratings

| Part Designation | Marking | Nominal Inductance (nH) | L Measuring Frequency (MHz) | Inductance Tolerance   | Q Quality Factor Minimum | Q Measuring Frequency (MHz) | Self Resonant Frequency Minimum (MHz) | DC Resistance Maximum (Ω) | Allowable DC Current Maximum (mA) |                |            |              |                |
|------------------|---------|-------------------------|-----------------------------|------------------------|--------------------------|-----------------------------|---------------------------------------|---------------------------|-----------------------------------|----------------|------------|--------------|----------------|
| KQT0402T**1N0*   | —       | 1.0                     | 250                         | B: ±0.1nH<br>C: ±0.2nH | 16                       | 250                         | 11000                                 | 0.045                     | 1360                              |                |            |              |                |
| KQT0402T**1N9*   |         | 1.9                     |                             |                        | 9600                     |                             | 0.070                                 | 1040                      |                                   |                |            |              |                |
| KQT0402T**2N0*   |         | 2.0                     |                             |                        |                          |                             |                                       |                           | 8000                              | 0.068<br>0.120 | 960<br>700 |              |                |
| KQT0402T**2N2*   |         | 2.2                     |                             |                        |                          |                             |                                       |                           |                                   |                |            | 7200         | 0.066          |
| KQT0402T**2N4*   |         | 2.4                     |                             | 6000                   |                          |                             |                                       |                           |                                   |                |            |              |                |
| KQT0402T**2N7*   |         | 2.7                     |                             |                        | 5800                     |                             | 0.083                                 | 760                       |                                   |                |            |              |                |
| KQT0402T**3N3*   |         | 3.3                     |                             |                        |                          |                             |                                       |                           | 4800                              | 0.086          | 680        |              |                |
| KQT0402T**3N6*   |         | 3.6                     |                             |                        |                          |                             |                                       |                           |                                   |                |            | 5800<br>4400 | 0.104          |
| KQT0402T**3N9*   |         | 3.9                     |                             | 4200                   |                          |                             |                                       |                           |                                   |                |            |              |                |
| KQT0402T**4N3*   |         | 4.3                     |                             |                        | 4160                     |                             | 0.104                                 | 680                       |                                   |                |            |              |                |
| KQT0402T**4N7*   |         | 4.7                     |                             |                        |                          |                             |                                       |                           | 4000                              | 0.150          | 650        |              |                |
| KQT0402T**5N1*   |         | 5.1                     |                             |                        |                          |                             |                                       |                           |                                   |                |            | 3900         | 0.195          |
| KQT0402T**5N6*   |         | 5.6                     |                             | 3680<br>3600           |                          |                             |                                       |                           |                                   |                |            |              |                |
| KQT0402T**6N2*   |         | 6.2                     |                             |                        | 3450<br>3280             |                             | 0.180<br>0.172                        | 560                       |                                   |                |            |              |                |
| KQT0402T**6N8*   |         | 6.8                     |                             |                        |                          |                             |                                       |                           | 3100                              | 0.200<br>0.230 | 500        |              |                |
| KQT0402T**7N5*   |         | 7.5                     |                             |                        |                          |                             |                                       |                           |                                   |                |            | 3040         | 0.202          |
| KQT0402T**8N2*   |         | 8.2                     |                             | 3000                   |                          |                             |                                       |                           |                                   |                |            |              |                |
| KQT0402T**8N7*   |         | 8.7                     |                             |                        | 2800                     |                             | 0.323                                 | 400                       |                                   |                |            |              |                |
| KQT0402T**9N0*   |         | 9.0                     |                             |                        |                          |                             |                                       |                           | 2720                              | 0.214          | 400        |              |                |
| KQT0402T**9N5*   |         | 9.5                     |                             |                        |                          |                             |                                       |                           |                                   |                |            | 2700         | 0.322          |
| KQT0402T**10N*   |         | 10                      |                             | 2480                   |                          |                             |                                       |                           |                                   |                |            |              |                |
| KQT0402T**11N*   |         | 11                      |                             |                        | 2400                     |                             | 0.354<br>0.393<br>0.550               | 340                       |                                   |                |            |              |                |
| KQT0402T**12N*   |         | 12                      |                             |                        |                          |                             |                                       |                           | 2320                              | 0.560          | 320        |              |                |
| KQT0402T**13N*   |         | 13                      |                             |                        |                          |                             |                                       |                           |                                   |                |            | 2300         | 0.550          |
| KQT0402T**15N*   |         | 15                      |                             | 2240                   |                          |                             |                                       |                           |                                   |                |            |              |                |
| KQT0402T**16N*   |         | 16                      |                             |                        | 2200                     |                             | 0.810                                 | 300                       |                                   |                |            |              |                |
| KQT0402T**18N*   |         | 18                      |                             |                        |                          |                             |                                       |                           | 2100                              | 0.830<br>0.835 | 150<br>240 |              |                |
| KQT0402T**19N*   |         | 19                      |                             |                        |                          |                             |                                       |                           |                                   |                |            | 2800<br>2000 | 1.170<br>1.120 |
| KQT0402T**20N*   |         | 20                      |                             | 1800                   |                          |                             |                                       |                           |                                   |                |            |              |                |
| KQT0402T**22N*   |         | 22                      |                             |                        | 1600                     |                             | 2.090                                 | 130                       |                                   |                |            |              |                |
| KQT0402T**23N*   |         | 23                      |                             |                        |                          |                             |                                       |                           | 1500                              | 2.320          | 120        |              |                |
| KQT0402T**24N*   |         | 24                      |                             |                        |                          |                             |                                       |                           |                                   |                |            | 1500         | 2.320          |
| KQT0402T**27N*   |         | 27                      |                             | 1500                   |                          |                             |                                       |                           |                                   |                |            |              |                |
| KQT0402T**30N*   |         | 30                      |                             |                        | 1500                     |                             | 2.320                                 | 120                       |                                   |                |            |              |                |
| KQT0402T**33N*   |         | 33                      |                             |                        |                          |                             |                                       |                           | 1500                              | 2.320          | 120        |              |                |
| KQT0402T**34N*   |         | 34                      |                             |                        |                          |                             |                                       |                           |                                   |                |            | 1500         | 2.320          |
| KQT0402T**36N*   |         | 36                      |                             | 1500                   |                          |                             |                                       |                           |                                   |                |            |              |                |
| KQT0402T**39N*   |         | 39                      |                             |                        | 1500                     |                             | 2.320                                 | 120                       |                                   |                |            |              |                |
| KQT0402T**40N*   |         | 40                      |                             |                        |                          |                             |                                       |                           | 1500                              | 2.320          | 120        |              |                |
| KQT0402T**43N*   |         | 43                      |                             |                        |                          |                             |                                       |                           |                                   |                |            | 1500         | 2.320          |
| KQT0402T**47N*   |         | 47                      |                             | 1500                   |                          |                             |                                       |                           |                                   |                |            |              |                |
| KQT0402T**51N*   |         | 51                      |                             |                        | 1500                     |                             | 2.320                                 | 120                       |                                   |                |            |              |                |
| KQT0402T**56N*   |         | 56                      |                             |                        |                          |                             |                                       |                           | 1500                              | 2.320          | 120        |              |                |
| KQT0402T**68N*   |         | 68                      |                             |                        |                          |                             |                                       |                           |                                   |                |            | 1500         | 2.320          |
| KQT0402T**82N*   |         | 82                      |                             | 1500                   |                          |                             |                                       |                           |                                   |                |            |              |                |
| KQT0402T**R10*   |         | 100                     |                             |                        | 1500                     |                             | 2.320                                 | 120                       |                                   |                |            |              |                |
| KQT0402T**R12*   |         | 120                     |                             |                        |                          |                             |                                       |                           | 1500                              | 2.320          | 120        |              |                |
|                  |         | 1500                    | 2.320                       |                        |                          | 120                         |                                       |                           |                                   |                |            |              |                |
|                  |         |                         |                             | 1500                   |                          |                             |                                       |                           |                                   |                |            | 2.320        | 120            |
|                  |         |                         |                             |                        | 1500                     |                             | 2.320                                 | 120                       |                                   |                |            |              |                |
|                  |         |                         |                             |                        |                          |                             |                                       |                           | 1500                              | 2.320          | 120        |              |                |
|                  |         | 1500                    | 2.320                       |                        |                          | 120                         |                                       |                           |                                   |                |            |              |                |
|                  |         |                         |                             | 1500                   |                          |                             |                                       |                           |                                   |                |            | 2.320        | 120            |
|                  |         |                         |                             |                        | 1500                     |                             | 2.320                                 | 120                       |                                   |                |            |              |                |
|                  |         |                         |                             |                        |                          |                             |                                       |                           | 1500                              | 2.320          | 120        |              |                |
|                  |         | 1500                    | 2.320                       |                        |                          | 120                         |                                       |                           |                                   |                |            |              |                |
|                  |         |                         |                             | 1500                   |                          |                             |                                       |                           |                                   |                |            | 2.320        | 120            |
|                  |         |                         |                             |                        | 1500                     |                             | 2.320                                 | 120                       |                                   |                |            |              |                |
|                  |         |                         |                             |                        |                          |                             |                                       |                           | 1500                              | 2.320          | 120        |              |                |
|                  |         | 1500                    | 2.320                       |                        |                          | 120                         |                                       |                           |                                   |                |            |              |                |
|                  |         |                         |                             | 1500                   |                          |                             |                                       |                           |                                   |                |            | 2.320        | 120            |
|                  |         |                         |                             |                        | 1500                     |                             | 2.320                                 | 120                       |                                   |                |            |              |                |
|                  |         |                         |                             |                        |                          |                             |                                       |                           | 1500                              | 2.320          | 120        |              |                |
|                  |         | 1500                    | 2.320                       |                        |                          | 120                         |                                       |                           |                                   |                |            |              |                |
|                  |         |                         |                             | 1500                   |                          |                             |                                       |                           |                                   |                |            | 2.320        | 120            |
|                  |         |                         |                             |                        | 1500                     |                             | 2.320                                 | 120                       |                                   |                |            |              |                |
|                  |         |                         |                             |                        |                          |                             |                                       |                           | 1500                              | 2.320          | 120        |              |                |
|                  |         | 1500                    | 2.320                       |                        |                          | 120                         |                                       |                           |                                   |                |            |              |                |
|                  |         |                         |                             | 1500                   |                          |                             |                                       |                           |                                   |                |            | 2.320        | 120            |
|                  |         |                         |                             |                        | 1500                     |                             | 2.320                                 | 120                       |                                   |                |            |              |                |
|                  |         |                         |                             |                        |                          |                             |                                       |                           | 1500                              | 2.320          | 120        |              |                |
|                  |         | 1500                    | 2.320                       |                        |                          | 120                         |                                       |                           |                                   |                |            |              |                |
|                  |         |                         |                             | 1500                   |                          |                             |                                       |                           |                                   |                |            | 2.320        | 120            |
|                  |         |                         |                             |                        | 1500                     |                             | 2.320                                 | 120                       |                                   |                |            |              |                |
|                  |         |                         |                             |                        |                          |                             |                                       |                           | 1500                              | 2.320          | 120        |              |                |
|                  |         | 1500                    | 2.320                       |                        |                          | 120                         |                                       |                           |                                   |                |            |              |                |
|                  |         |                         |                             | 1500                   |                          |                             |                                       |                           |                                   |                |            | 2.320        | 120            |
|                  |         |                         |                             |                        | 1500                     |                             | 2.320                                 | 120                       |                                   |                |            |              |                |
|                  |         |                         |                             |                        |                          |                             |                                       |                           | 1500                              | 2.320          | 120        |              |                |
|                  |         | 1500                    | 2.320                       |                        |                          | 120                         |                                       |                           |                                   |                |            |              |                |
|                  |         |                         |                             | 1500                   |                          |                             |                                       |                           |                                   |                |            | 2.320        | 120            |
|                  |         |                         |                             |                        | 1500                     |                             | 2.320                                 | 120                       |                                   |                |            |              |                |
|                  |         |                         |                             |                        |                          |                             |                                       |                           | 1500                              | 2.320          | 120        |              |                |
|                  |         | 1500                    | 2.320                       |                        |                          | 120                         |                                       |                           |                                   |                |            |              |                |
|                  |         |                         |                             | 1500                   |                          |                             |                                       |                           |                                   |                |            | 2.320        | 120            |
|                  |         |                         |                             |                        | 1500                     |                             | 2.320                                 | 120                       |                                   |                |            |              |                |
|                  |         |                         |                             |                        |                          |                             |                                       |                           | 1500                              | 2.320          | 120        |              |                |
|                  |         | 1500                    | 2.320                       |                        |                          | 120                         |                                       |                           |                                   |                |            |              |                |
|                  |         |                         |                             | 1500                   |                          |                             |                                       |                           |                                   |                |            | 2.320        | 120            |
|                  |         |                         |                             |                        | 1500                     |                             | 2.320                                 | 120                       |                                   |                |            |              |                |
|                  |         |                         |                             |                        |                          |                             |                                       |                           | 1500                              | 2.320          | 120        |              |                |
|                  |         | 1500                    | 2.320                       |                        |                          | 120                         |                                       |                           |                                   |                |            |              |                |
|                  |         |                         |                             | 1500                   |                          |                             |                                       |                           |                                   |                |            | 2.320        | 120            |
|                  |         |                         |                             |                        | 1500                     |                             | 2.320                                 | 120                       |                                   |                |            |              |                |
|                  |         |                         |                             |                        |                          |                             |                                       |                           | 1500                              | 2.320          | 120        |              |                |
|                  |         | 1500                    | 2.320                       |                        |                          | 120                         |                                       |                           |                                   |                |            |              |                |
|                  |         |                         |                             | 1500                   |                          |                             |                                       |                           |                                   |                |            | 2.320        | 120            |
|                  |         |                         |                             |                        | 1500                     |                             | 2.320                                 | 120                       |                                   |                |            |              |                |
|                  |         |                         |                             |                        |                          |                             |                                       |                           | 1500                              | 2.320          | 120        |              |                |
|                  |         | 1500                    | 2.320                       |                        |                          | 120                         |                                       |                           |                                   |                |            |              |                |
|                  |         |                         |                             | 1500                   |                          |                             |                                       |                           |                                   |                |            | 2.320        | 120            |
|                  |         |                         |                             |                        | 1500                     |                             | 2.320                                 | 120                       |                                   |                |            |              |                |
|                  |         |                         |                             |                        |                          |                             |                                       |                           | 1500                              | 2.320          | 120        |              |                |
|                  |         | 1500                    | 2.320                       |                        |                          | 120                         |                                       |                           |                                   |                |            |              |                |
|                  |         |                         |                             | 1500                   |                          |                             |                                       |                           |                                   |                |            | 2.320        | 120            |
|                  |         |                         |                             |                        | 1500                     |                             | 2.320                                 | 120                       |                                   |                |            |              |                |
|                  |         |                         |                             |                        |                          |                             |                                       |                           | 1500                              | 2.320          | 120        |              |                |
|                  |         | 1500                    | 2.320                       |                        |                          |                             |                                       |                           |                                   |                |            |              |                |

\* Add tolerancing character (B, C, G, H, J, K, M)

\*\* Add packaging code

For complete environmental specifications, please refer to [www.koaspeer.com](http://www.koaspeer.com)

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

12/01/14

applications and ratings (continued)

| Part Designation | Marking | Nominal Inductance (nH) | L Measuring Frequency (MHz) | Inductance Tolerance | Q Quality Factor Minimum | Q Measuring Frequency (MHz) | Self Resonant Frequency Minimum (MHz) | DC Resistance Maximum (Ω) | Allowable DC Current Maximum (mA) |
|------------------|---------|-------------------------|-----------------------------|----------------------|--------------------------|-----------------------------|---------------------------------------|---------------------------|-----------------------------------|
| KQ0603TTE1N6*    | C       | 1.6                     | 250                         | J: ±5%<br>K: ±10%    | 24                       | 250                         | 12500                                 | 0.03                      | 700                               |
| KQ0603TTE1N8*    | 0       | 1.8                     |                             |                      | 16                       |                             |                                       | 0.045                     |                                   |
| KQ0603TTE3N3*    | X       | 3.3                     |                             |                      | 22                       |                             | 6900                                  | 0.055                     |                                   |
| KQ0603TTE3N6*    | E       | 3.6                     |                             |                      |                          |                             |                                       | 0.063                     |                                   |
| KQ0603TTE3N9*    | 1       | 3.9                     |                             |                      |                          |                             |                                       | 0.08                      |                                   |
| KQ0603TTE4N3*    | F       | 4.3                     |                             |                      |                          |                             | 5900                                  | 0.063                     |                                   |
| KQ0603TTE4N7*    | G       | 4.7                     |                             |                      | 20                       |                             | 5800                                  | 0.116                     |                                   |
| KQ0603TTE5N1*    | Y       | 5.1                     |                             |                      |                          |                             |                                       | 0.115                     |                                   |
| KQ0603TTE6N8*    | 2       | 6.8                     |                             |                      | 27                       |                             |                                       | 0.11                      |                                   |
| KQ0603TTE7N5*    | H       | 7.5                     |                             |                      | 28                       |                             | 4800                                  | 0.106                     |                                   |
| KQ0603TTE8N2*    | A       | 8.2                     |                             | 0.12                 |                          |                             |                                       |                           |                                   |
| KQ0603TTE8N7*    | J       | 8.7                     |                             | 4600                 |                          |                             | 0.109                                 |                           |                                   |
| KQ0603TTE9N5*    | B       | 9.5                     |                             | 4800                 |                          |                             |                                       | 0.125                     |                                   |
| KQ0603TTE10N*    | 3       | 10                      |                             |                      | 0.13                     |                             |                                       |                           |                                   |
| KQ0603TTE11N*    | K       | 11                      |                             | 33                   | 4000                     |                             | 0.086                                 |                           |                                   |
| KQ0603TTE12N*    | 4       | 12                      |                             | 35                   |                          |                             | 0.13                                  |                           |                                   |
| KQ0603TTE15N*    | 5       | 15                      |                             |                      |                          |                             | 0.17                                  |                           |                                   |
| KQ0603TTE16N*    | L       | 16                      |                             | 34                   |                          |                             | 3300                                  | 0.104                     |                                   |
| KQ0603TTE18N*    | 6       | 18                      |                             | 35                   | 3100                     |                             | 0.17                                  |                           |                                   |
| KQ0603TTE22N*    | 7       | 22                      |                             | 38                   | 3000                     |                             | 0.19                                  |                           |                                   |
| KQ0603TTE23N*    | S       | 23                      |                             | 37                   | 2700                     |                             | 0.15                                  |                           |                                   |
| KQ0603TTE24N*    | M       | 24                      |                             |                      | 2650                     |                             | 0.135                                 |                           |                                   |
| KQ0603TTE27N*    | 8       | 27                      | 40                          | 2800                 | 0.22                     |                             |                                       |                           |                                   |
| KQ0603TTE30N*    | N       | 30                      | 37                          | 2250                 | 0.144                    |                             |                                       |                           |                                   |
| KQ0603TTE33N*    | 9       | 33                      | 40                          | 2300                 | 0.22                     |                             |                                       |                           |                                   |
| KQ0603TTE36N*    | P       | 36                      | 38                          | 2080                 | 0.25                     |                             |                                       |                           |                                   |
| KQ0603TTE39N*    | 0       | 39                      | 40                          | 2200                 |                          |                             |                                       |                           |                                   |
| KQ0603TTE43N*    | Q       | 43                      | 39                          | 2000                 | 0.28                     |                             |                                       |                           |                                   |
| KQ0603TTE47N*    | 1       | 47                      | 200                         | 38                   | 200                      | 1900                        | 0.30                                  |                           |                                   |
| KQ0603TTE51N*    | T       | 51                      |                             |                      |                          |                             | 0.31                                  |                           |                                   |
| KQ0603TTE56N*    | 2       | 56                      |                             | 37                   |                          | 1700                        | 0.34                                  |                           |                                   |
| KQ0603TTE68N*    | 3       | 68                      |                             |                      |                          |                             | 0.49                                  |                           |                                   |
| KQ0603TTE72N*    | 4       | 72                      | 34                          | 150                  | 1400                     | 0.54                        |                                       |                           |                                   |
| KQ0603TTE82N*    | 5       | 82                      |                             |                      |                          | 0.58                        |                                       |                           |                                   |
| KQ0603TTER10*    | 6       | 100                     | 32                          |                      | 1350                     | 0.61                        |                                       |                           |                                   |
| KQ0603TTER11*    | 7       | 110                     |                             |                      | 1300                     | 0.65                        |                                       |                           |                                   |
| KQ0603TTER12*    | 8       | 120                     |                             |                      | 1400                     | 1.4                         |                                       |                           |                                   |
| KQ0603TTER15*    | 9       | 150                     |                             |                      |                          |                             |                                       |                           |                                   |
| KQ0603TTER18*    | 0       | 180                     | 100                         | 25                   | 100                      | 1300                        | 2.2                                   | 140                       |                                   |
| KQ0603TTER20*    | U       | 200                     |                             |                      |                          | 1200                        | 2.3                                   | 130                       |                                   |
| KQ0603TTER21*    | V       | 210                     |                             |                      |                          |                             | 2.5                                   | 120                       |                                   |
| KQ0603TTER22*    | 1       | 220                     |                             |                      |                          | 1000                        | 2.4                                   |                           |                                   |
| KQ0603TTER25*    | W       | 250                     |                             | 24                   |                          | 900                         | 2.3                                   | 170                       |                                   |
| KQ0603TTER27*    | 2       | 270                     |                             |                      |                          | 840                         | 3.17                                  | 110                       |                                   |
| KQ0603TTER30*    | X       | 300                     |                             |                      | 800                      | 3.0                         | 100                                   |                           |                                   |
| KQ0603TTER33*    | 3       | 330                     |                             |                      | 700                      | 3.7                         | 80                                    |                           |                                   |
| KQ0603TTER39*    | 4       | 390                     |                             | 30                   | 50                       | 640                         | 1.21                                  | 190                       |                                   |
| KQ0603TTER47*    | 5       | 470                     |                             |                      |                          | 610                         | 1.26                                  | 170                       |                                   |
| KQ0603TTER51*    | V       | 510                     | 560                         |                      |                          | 2.09                        | 130                                   |                           |                                   |
| KQ0603TTER56*    | 6       | 560                     |                             |                      |                          |                             |                                       |                           |                                   |
| KQ0603TTER62*    | W       | 620                     |                             |                      |                          |                             | 590                                   | 1.89                      | 150                               |

\* Add tolerance character (B, C, G, H, J, K, M) For complete environmental specifications, please refer to [www.koaspeer.com](http://www.koaspeer.com)

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applications and ratings (continued)

|               | Part Designation | Marking | Nominal Inductance (nH) | L Measuring Frequency (MHz) | Inductance Tolerance        | Q Quality Factor Minimum | Q Measuring Frequency (MHz) | Self Resonant Frequency Minimum (MHz) | DC Resistance Maximum (Ω) | Allowable DC Current Maximum (mA) |
|---------------|------------------|---------|-------------------------|-----------------------------|-----------------------------|--------------------------|-----------------------------|---------------------------------------|---------------------------|-----------------------------------|
| NEW           | KQ0603TTER68*    | 7       | 680                     | 50                          | J: ±5%<br>K: ±10%           | 30                       | 50                          | 540                                   | 1.97                      | 140                               |
|               | KQ0603TTER72*    | C       | 720                     |                             |                             |                          |                             | 530                                   | 2.04                      | 130                               |
|               | KQ0603TTER75*    | X       | 750                     |                             |                             |                          |                             | 490                                   | 3.09                      | 110                               |
| KQ0603TTER82* | 8                | 820     | 480                     |                             |                             |                          |                             | 2.95                                  | 120                       |                                   |
| KQ0603TTER91* | Y                | 910     | 440                     |                             |                             |                          |                             | 5.13                                  | 90                        |                                   |
| KQ0603TTE1R0* | 9                | 1000    | 400                     |                             |                             |                          |                             | 5.45                                  | 80                        |                                   |
| KQ0603TTE1R2* | 0                | 1200    |                         |                             |                             |                          |                             |                                       |                           |                                   |
|               | KQ0805TTE3N3*    | 0       | 3.3                     | 250                         |                             | 50                       | 1500                        | 6000                                  | 0.08                      | 600                               |
|               | KQ0805TTE6N8*    | 1       | 6.8                     |                             |                             |                          | 1000                        | 5500                                  | 0.11                      |                                   |
|               | KQ0805TTE8N2*    | 2       | 8.2                     |                             |                             |                          | 4700                        | 0.12                                  |                           |                                   |
|               | KQ0805TTE12N*    | 3       | 12                      |                             |                             | 500                      | 4000                        | 0.15                                  | 500                       |                                   |
|               | KQ0805TTE15N*    | 4       | 15                      |                             |                             |                          | 3400                        | 0.17                                  |                           |                                   |
|               | KQ0805TTE18N*    | 5       | 18                      |                             |                             |                          | 3300                        | 0.20                                  |                           |                                   |
|               | KQ0805TTE20N*    | Y       | 20                      |                             |                             |                          |                             |                                       |                           |                                   |
|               | KQ0805TTE22N*    | 6       | 22                      | 55                          | 2600                        | 0.22                     | 500                         |                                       |                           |                                   |
|               | KQ0805TTE27N*    | 7       | 27                      |                             | 2500                        | 0.25                     |                             |                                       |                           |                                   |
|               | KQ0805TTE33N*    | 8       | 33                      |                             | 2050                        | 0.27                     |                             |                                       |                           |                                   |
|               | KQ0805TTE39N*    | 9       | 39                      | 60                          | 2000                        | 0.29                     |                             | 500                                   |                           |                                   |
|               | KQ0805TTE43N*    | 4       | 43                      |                             | 1650                        | 0.34                     |                             |                                       |                           |                                   |
|               | KQ0805TTE47N*    | 0       | 47                      |                             | 0.31                        |                          |                             |                                       |                           |                                   |
|               | KQ0805TTE56N*    | 1       | 56                      | 200                         |                             | 1550                     | 0.34                        | 400                                   |                           |                                   |
|               | KQ0805TTE68N*    | 2       | 68                      |                             |                             | 1450                     | 0.38                        |                                       |                           |                                   |
|               | KQ0805TTE82N*    | 3       | 82                      |                             |                             | 1300                     | 0.42                        |                                       |                           |                                   |
|               | KQ0805TTER10*    | 4       | 100                     | 150                         | G: ±2%<br>J: ±5%<br>K: ±10% | 65                       | 1200                        | 0.46                                  | 400                       |                                   |
|               | KQ0805TTER12*    | 5       | 120                     |                             |                             |                          | 1100                        | 0.51                                  |                           |                                   |
|               | KQ0805TTER15*    | 6       | 150                     |                             |                             |                          | 920                         | 0.56                                  |                           |                                   |
|               | KQ0805TTER16*    | H       | 160                     | 50                          | 250                         | 870                      | 0.64                        | 400                                   |                           |                                   |
|               | KQ0805TTER17*    | J       | 170                     |                             |                             | 850                      | 0.70                        |                                       |                           |                                   |
|               | KQ0805TTER18*    | 7       | 180                     |                             |                             | 650                      | 1.0                         |                                       |                           | 350                               |
|               | KQ0805TTER19*    | D       | 190                     |                             |                             | 600                      | 1.4                         |                                       |                           |                                   |
|               | KQ0805TTER20*    | E       | 200                     |                             |                             | 560                      | 1.5                         |                                       |                           |                                   |
|               | KQ0805TTER21*    | F       | 210                     |                             |                             | 48                       | 250                         | 560                                   | 1.5                       | 290                               |
|               | KQ0805TTER22*    | 8       | 220                     |                             |                             |                          |                             | 375                                   | 1.76                      | 250                               |
|               | KQ0805TTER23*    | K       | 230                     | 340                         | 1.9                         |                          |                             | 230                                   |                           |                                   |
|               | KQ0805TTER24*    | L       | 240                     | 188                         | 2.2                         |                          |                             | 190                                   |                           |                                   |
|               | KQ0805TTER25*    | G       | 250                     | 215                         | 2.35                        |                          |                             | 180                                   |                           |                                   |
|               | KQ0805TTER27*    | 9       | 270                     |                             |                             |                          |                             |                                       |                           |                                   |
|               | KQ0805TTER33*    | 0       | 330                     | 50                          | J: ±5%<br>K: ±10%           |                          |                             | 23                                    | 50                        | 4100                              |
|               | KQ0805TTER39*    | 1       | 390                     |                             |                             | 3300                     | 0.09                        |                                       |                           |                                   |
|               | KQ0805TTER47*    | 2       | 470                     |                             |                             | 3000                     | 0.10                        |                                       |                           |                                   |
|               | KQ1008TTE10N*    | 10N     | 10                      | 50                          | 500                         | 2500                     | 0.11                        |                                       |                           |                                   |
|               | KQ1008TTE12N*    | 12N     | 12                      |                             |                             | 2400                     | 0.12                        |                                       |                           |                                   |
|               | KQ1008TTE15N*    | 15N     | 15                      |                             |                             | 1600                     | 0.13                        |                                       |                           |                                   |
|               | KQ1008TTE18N*    | 18N     | 18                      | 55                          | 350                         | 1600                     | 0.14                        |                                       |                           |                                   |
|               | KQ1008TTE22N*    | 22N     | 22                      |                             |                             | 1500                     | 0.15                        |                                       |                           |                                   |
|               | KQ1008TTE27N*    | 27N     | 27                      |                             |                             | 1500                     | 0.16                        |                                       |                           |                                   |
|               | KQ1008TTE33N*    | 33N     | 33                      | 60                          |                             | 1500                     | 0.16                        |                                       |                           |                                   |
|               | KQ1008TTE39N*    | 39N     | 39                      |                             |                             |                          |                             |                                       |                           |                                   |
|               | KQ1008TTE47N*    | 47N     | 47                      |                             |                             |                          |                             |                                       |                           |                                   |

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## applications and ratings (continued)

| Part Designation | Marking | Nominal Inductance (nH) | L Measuring Frequency (MHz) | Inductance Tolerance        | Q Quality Factor Minimum | Q Measuring Frequency (MHz) | Self Resonant Frequency Minimum (MHz) | DC Resistance Maximum (Ω) | Allowable DC Current Maximum (mA) |      |
|------------------|---------|-------------------------|-----------------------------|-----------------------------|--------------------------|-----------------------------|---------------------------------------|---------------------------|-----------------------------------|------|
| KQ1008TTE56N*    | 56N     | 56                      | 50                          | G: ±2%<br>J: ±5%<br>K: ±10% | 65                       | 350                         | 1300                                  | 0.18                      | 1000                              |      |
| KQ1008TTE68N*    | 68N     | 68                      |                             |                             |                          |                             | 1000                                  | 0.20                      |                                   |      |
| KQ1008TTE82N*    | 82N     | 82                      |                             |                             |                          |                             |                                       | 0.22                      |                                   |      |
| KQ1008TTER10*    | R10     | 100                     | 25                          |                             | 45                       | 100                         | 1000                                  | 0.56                      | 650                               |      |
| KQ1008TTER12*    | R12     | 120                     |                             |                             |                          |                             | 950                                   | 0.63                      |                                   |      |
| KQ1008TTER15*    | R15     | 150                     |                             |                             |                          |                             | 850                                   | 0.70                      |                                   | 580  |
| KQ1008TTER18*    | R18     | 180                     |                             |                             |                          |                             | 750                                   | 0.77                      | 620                               |      |
| KQ1008TTER22*    | R22     | 220                     |                             |                             |                          |                             | 700                                   | 0.84                      | 500                               |      |
| KQ1008TTER27*    | R27     | 270                     |                             |                             |                          |                             | 600                                   | 0.91                      | 500                               |      |
| KQ1008TTER33*    | R33     | 330                     |                             |                             |                          |                             | 570                                   | 1.05                      | 450                               |      |
| KQ1008TTER39*    | R39     | 390                     |                             |                             |                          |                             | 500                                   | 1.12                      | 470                               |      |
| KQ1008TTER47*    | R47     | 470                     |                             |                             |                          |                             | 450                                   | 1.19                      |                                   |      |
| KQ1008TTER56*    | R56     | 560                     |                             |                             |                          |                             | 415                                   | 1.33                      |                                   | 400  |
| KQ1008TTER62*    | R62     | 620                     |                             |                             |                          |                             | 375                                   | 1.40                      | 300                               |      |
| KQ1008TTER68*    | R68     | 680                     |                             |                             |                          |                             |                                       | 1.47                      | 400                               |      |
| KQ1008TTER75*    | R75     | 750                     |                             |                             |                          |                             |                                       | 360                       | 1.54                              | 360  |
| KQ1008TTER82*    | R82     | 820                     |                             |                             |                          |                             | 350                                   | 1.61                      | 400                               |      |
| KQ1008TTER91*    | R91     | 910                     |                             |                             |                          |                             | 35                                    | 50                        | 320                               | 1.68 |
| KQ1008TTE1R0*    | 1R0     | 1000                    | 290                         |                             | 1.75                     | 370                         |                                       |                           |                                   |      |
| KQ1008TTE1R2*    | 1R2     | 1200                    | 250                         |                             | 1.6                      | 310                         |                                       |                           |                                   |      |
| KQ1008TTE1R5*    | 1R5     | 1500                    | 28                          |                             | 50                       | 200                         | 1.7                                   | 300                       |                                   |      |
| KQ1008TTE1R8*    | 1R8     | 1800                    |                             |                             |                          | 160                         | 1.9                                   | 270                       |                                   |      |
| KQ1008TTE2R2*    | 2R2     | 2200                    |                             |                             |                          |                             | 2.2                                   | 250                       |                                   |      |
| KQ1008TTE2R7*    | 2R7     | 2700                    | 22                          |                             | 25                       | 140                         | 2.3                                   |                           | 230                               |      |
| KQ1008TTE3R3*    | 3R3     | 3300                    |                             |                             |                          | 110                         | 2.7                                   |                           |                                   |      |
| KQ1008TTE3R9*    | 3R9     | 3900                    |                             |                             |                          | 20                          | 25                                    | 100                       | 2.8                               |      |
| KQ1008TTE4R7*    | 4R7     | 4700                    | 90                          |                             | 3.1                      |                             |                                       | 210                       |                                   |      |
| KQ1008TTE5R6*    | 5R6     | 5600                    | 15                          |                             | 7.9                      |                             |                                       | 80                        | 2.5                               | 240  |
| KQ1008TTE6R8*    | 6R8     | 6800                    |                             |                             |                          | 70                          | 2.8                                   | 200                       |                                   |      |
| KQ1008TTE8R2*    | 8R2     | 8200                    |                             |                             |                          | 65                          | 3.0                                   | 170                       |                                   |      |
| KQ1008TTE100*    | 100     | 10000                   |                             |                             |                          | 60                          | 3.4                                   | 150                       |                                   |      |

\* Add tolerance character (C, G, H, J, K, M)

Operating Temperature Range: -40°C ~ +125°C

The operating temperature range of the coil (ambient temperature + self heating) must remain at +125°C or less

## environmental applications

### Performance Characteristics

| Parameter                    | Requirements Maximum Limit                                          | Δ L/L Δ Q/Q Typical          | Test Method                                |
|------------------------------|---------------------------------------------------------------------|------------------------------|--------------------------------------------|
| Resistance to Soldering Heat | No significant abnormality in appearance<br>Δ L/L: ±5%, Δ Q/Q: ±10% | Δ L/L: ±2.7%<br>Δ Q/Q: ±6.6% | 260°C ± 5°C, 10s ± 1s                      |
| Rapid Change of Temperature  | No significant abnormality in appearance<br>Δ L/L: ±5%, Δ Q/Q: ±10% | Δ L/L: ±2.1%<br>Δ Q/Q: ±5.3% | -40°C (30min.)/ +125°C (30min.) 100 cycles |
| Low Temperature Exposure     | No significant abnormality in appearance<br>Δ L/L: ±5%, Δ Q/Q: ±10% | Δ L/L: ±1.8%<br>Δ Q/Q: ±2.8% | -40°C ± 2°C, 1000h                         |
| High Temperature Exposure    | No significant abnormality in appearance<br>Δ L/L: ±5%, Δ Q/Q: ±10% | Δ L/L: ±1.8%<br>Δ Q/Q: ±5.3% | 125°C ± 2°C, 1000h                         |
| Moisture Exposure            | No significant abnormality in appearance<br>Δ L/L: ±5%, Δ Q/Q: ±10% | Δ L/L: ±0.9%<br>Δ Q/Q: ±6.9% | 40°C ± 2°C, 90%~95%RH, 1000h               |
| Resistance to Solvent        | No damage and marking shall remain legible                          | —                            | Accordance with MIL-STD 202F Method 215    |

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