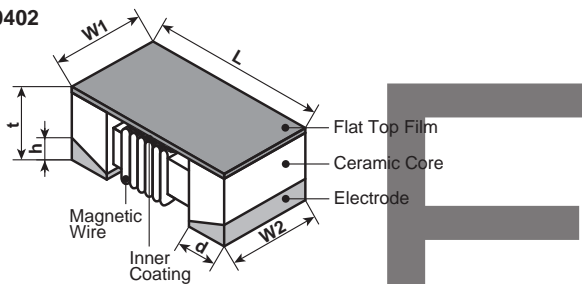


### features

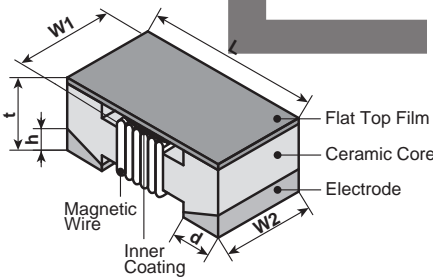
- Surface mount
- Operating temperature: -40°C ~ +125°C
- Flat top suitable for high speed pick-and-place components
- Excellent high frequency applications
- High Q factors and self-resonant frequency values
- Products with lead-free terminations meet EU RoHS requirements
- AEC-Q200 Tested

### dimensions and construction

0402



0603, 0805, 1008



| 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>+0.008</sup> <sub>-0</sub><br>(1.8 <sup>+0.2</sup> <sub>-0</sub> ) | .018±.006<br>(0.45±0.15) | .018±.004<br>(0.45±0.1) |

### ordering information

|             |                              |                             |                                                                                                                                                                            |                                                    |                                                                            |
|-------------|------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------------------------------|
| <b>KQ</b>   | <b>1008</b>                  | <b>T</b>                    | <b>TE</b>                                                                                                                                                                  | <b>10N</b>                                         | <b>J</b>                                                                   |
| <b>Type</b> | <b>Size Code</b>             | <b>Termination Material</b> | <b>Packaging</b>                                                                                                                                                           | <b>Nominal Inductance</b>                          | <b>Tolerance</b>                                                           |
| KQ<br>KQT   | 0402<br>0603<br>0805<br>1008 | T: Sn                       | TP: 2mm pitch paper<br>(0402: 10,000 pieces/reel)<br>TD: 7" paper tape<br>(0402: 2,000 pieces/reel)<br>TE: 7" embossed plastic<br>(0603, 0805, 1008:<br>2,000 pieces/reel) | 3 digits:<br>10N: 10nH<br>R10: 0.1μH<br>1R0: 1.0μH | 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                     |                             |                                       |                           |                                   |
| KQT0402T**2N2*   |         | 2.2                     |                             |                        |                          |                             | 7200                                  | 0.120                     | 700                               |
| KQT0402T**2N4*   |         | 2.4                     |                             |                        | 6000                     |                             |                                       |                           |                                   |
| KQT0402T**2N7*   |         | 2.7                     |                             |                        |                          |                             | 5800                                  | 0.083                     | 760                               |
| KQT0402T**3N3*   |         | 3.3                     |                             |                        | 4800                     |                             |                                       |                           |                                   |
| KQT0402T**3N6*   |         | 3.6                     |                             |                        |                          |                             | 5800                                  | 0.104                     | 680                               |
| KQT0402T**3N9*   |         | 3.9                     |                             |                        | 4400                     |                             |                                       |                           |                                   |
| KQT0402T**4N3*   |         | 4.3                     |                             |                        |                          |                             | 4200                                  | 0.104                     | 680                               |
| KQT0402T**4N7*   |         | 4.7                     |                             | 4000                   | 0.150                    |                             |                                       |                           |                                   |
| KQT0402T**5N1*   |         | 5.1                     |                             |                        |                          |                             | 3900                                  | 0.195                     | 480                               |
| KQT0402T**5N6*   |         | 5.6                     |                             | 3680                   | 0.120                    |                             |                                       |                           |                                   |
| KQT0402T**6N2*   |         | 6.2                     |                             |                        |                          |                             | 3600                                  | 0.180                     | 560                               |
| KQT0402T**6N8*   |         | 6.8                     |                             | 3280                   | 0.172                    |                             |                                       |                           |                                   |
| KQT0402T**7N5*   |         | 7.5                     |                             |                        |                          |                             | 3100                                  | 0.200                     | 480                               |
| KQT0402T**8N2*   |         | 8.2                     |                             | 3040                   | 0.202                    |                             |                                       |                           |                                   |
| KQT0402T**8N7*   |         | 8.7                     |                             |                        |                          |                             | 3000                                  | 0.250                     | 400                               |
| KQT0402T**9N0*   |         | 9.0                     |                             | 2800                   | 0.323                    |                             |                                       |                           |                                   |
| KQT0402T**9N5*   |         | 9.5                     |                             |                        |                          |                             | 2720                                  | 0.214                     | 320                               |
| KQT0402T**10N*   |         | 10                      |                             | 2700                   | 0.322                    |                             |                                       |                           |                                   |
| KQT0402T**11N*   |         | 11                      |                             |                        |                          |                             | 2480                                  | 0.298                     | 240                               |
| KQT0402T**12N*   |         | 12                      |                             | 2400                   | 0.354                    |                             |                                       |                           |                                   |
| KQT0402T**13N*   |         | 13                      |                             |                        |                          |                             | 2400                                  | 0.393                     | 150                               |
| KQT0402T**14N*   |         | 14                      |                             | 2320                   | 0.550                    |                             |                                       |                           |                                   |
| KQT0402T**15N*   |         | 15                      |                             |                        |                          |                             | 2300                                  | 0.550                     | 130                               |
| KQT0402T**16N*   |         | 16                      |                             | 2240                   | 0.620                    |                             |                                       |                           |                                   |
| KQT0402T**18N*   |         | 18                      |                             |                        |                          |                             | 2200                                  | 0.810                     | 100                               |
| KQT0402T**19N*   |         | 19                      |                             | 2100                   | 0.830                    |                             |                                       |                           |                                   |
| KQT0402T**20N*   |         | 20                      |                             |                        |                          |                             | 2100                                  | 0.835                     | 70                                |
| KQT0402T**22N*   |         | 22                      |                             | 2800                   | 1.170                    |                             |                                       |                           |                                   |
| KQT0402T**23N*   |         | 23                      |                             |                        |                          |                             | 2000                                  | 1.120                     | 50                                |
| KQT0402T**24N*   |         | 24                      |                             | 1800                   | 1.810                    |                             |                                       |                           |                                   |
| KQT0402T**27N*   |         | 27                      |                             |                        |                          |                             | 1600                                  | 2.090                     | 30                                |
| KQT0402T**30N*   |         | 30                      |                             | 1500                   | 2.320                    |                             |                                       |                           |                                   |
| KQT0402T**33N*   |         | 33                      |                             |                        |                          |                             |                                       |                           |                                   |
| KQT0402T**34N*   |         | 34                      |                             |                        |                          |                             |                                       |                           |                                   |
| KQT0402T**36N*   |         | 36                      |                             |                        |                          |                             |                                       |                           |                                   |
| KQT0402T**39N*   |         | 39                      |                             |                        |                          |                             |                                       |                           |                                   |
| KQT0402T**40N*   |         | 40                      |                             |                        |                          |                             |                                       |                           |                                   |
| KQT0402T**43N*   | 43      |                         |                             |                        |                          |                             |                                       |                           |                                   |
| KQT0402T**47N*   | 47      |                         |                             |                        |                          |                             |                                       |                           |                                   |
| KQT0402T**51N*   | 51      |                         |                             |                        |                          |                             |                                       |                           |                                   |
| KQT0402T**56N*   | 56      |                         |                             |                        |                          |                             |                                       |                           |                                   |
| KQT0402T**68N*   | 68      |                         |                             |                        |                          |                             |                                       |                           |                                   |
| KQT0402T**82N*   | 82      |                         |                             |                        |                          |                             |                                       |                           |                                   |
| KQT0402T**R10*   | 100     |                         |                             |                        |                          |                             |                                       |                           |                                   |
| KQT0402T**R12*   | 120     |                         |                             |                        |                          |                             |                                       |                           |                                   |

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

\*\* Add packaging code

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                       |                             |                                       | 0.055                     |                                   |
| KQ0603TTE3N6*    | E       | 3.6                     |                             |                             |                          |                             | 6900                                  | 0.063                     |                                   |
| KQ0603TTE3N9*    | 1       | 3.9                     |                             |                             |                          |                             | 5900                                  | 0.08                      |                                   |
| KQ0603TTE4N3*    | F       | 4.3                     |                             |                             | 20                       |                             | 0.063                                 |                           |                                   |
| KQ0603TTE4N7*    | G       | 4.7                     |                             |                             |                          |                             | 5800                                  | 0.116                     |                                   |
| KQ0603TTE5N1*    | Y       | 5.1                     |                             |                             |                          |                             | 5800                                  | 0.115                     |                                   |
| KQ0603TTE6N8*    | 2       | 6.8                     |                             |                             | 27                       |                             | 0.11                                  |                           |                                   |
| KQ0603TTE7N5*    | H       | 7.5                     |                             |                             | 28                       |                             | 0.106                                 |                           |                                   |
| KQ0603TTE8N2*    | A       | 8.2                     |                             | 4800                        |                          | 0.12                        |                                       |                           |                                   |
| KQ0603TTE8N7*    | J       | 8.7                     |                             | 4600                        |                          | 0.109                       |                                       |                           |                                   |
| KQ0603TTE9N5*    | B       | 9.5                     |                             | 31                          | 0.125                    |                             |                                       |                           |                                   |
| KQ0603TTE10N*    | 3       | 10                      |                             |                             | 4800                     | 0.13                        |                                       |                           |                                   |
| KQ0603TTE11N*    | K       | 11                      |                             |                             | 33                       | 0.086                       |                                       |                           |                                   |
| KQ0603TTE12N*    | 4       | 12                      |                             | 35                          | 0.13                     |                             |                                       |                           |                                   |
| KQ0603TTE15N*    | 5       | 15                      |                             | 34                          | 0.17                     |                             |                                       |                           |                                   |
| KQ0603TTE16N*    | L       | 16                      |                             | 35                          | 0.104                    |                             |                                       |                           |                                   |
| KQ0603TTE18N*    | 6       | 18                      |                             | 38                          | 0.17                     |                             |                                       |                           |                                   |
| KQ0603TTE22N*    | 7       | 22                      |                             | 37                          | 0.19                     |                             |                                       |                           |                                   |
| KQ0603TTE23N*    | S       | 23                      | 37                          | 0.15                        |                          |                             |                                       |                           |                                   |
| KQ0603TTE24N*    | M       | 24                      | 40                          | 0.135                       |                          |                             |                                       |                           |                                   |
| KQ0603TTE27N*    | 8       | 27                      | 37                          | 0.22                        |                          |                             |                                       |                           |                                   |
| KQ0603TTE30N*    | N       | 30                      | 40                          | 0.144                       |                          |                             |                                       |                           |                                   |
| KQ0603TTE33N*    | 9       | 33                      | 40                          | 0.22                        |                          |                             |                                       |                           |                                   |
| KQ0603TTE36N*    | P       | 36                      | 38                          | 0.25                        |                          |                             |                                       |                           |                                   |
| KQ0603TTE39N*    | 0       | 39                      | 40                          | 0.25                        |                          |                             |                                       |                           |                                   |
| KQ0603TTE43N*    | Q       | 43                      | 39                          | 0.25                        |                          |                             |                                       |                           |                                   |
| KQ0603TTE47N*    | 1       | 47                      | 200                         | G: ±2%<br>J: ±5%<br>K: ±10% | 38                       | 2000                        | 0.28                                  | 600                       |                                   |
| KQ0603TTE51N*    | T       | 51                      |                             |                             | 38                       | 200                         | 1900                                  |                           | 0.30                              |
| KQ0603TTE56N*    | 2       | 56                      |                             |                             | 37                       | 200                         | 1900                                  |                           | 0.31                              |
| KQ0603TTE68N*    | 3       | 68                      | 150                         | 34                          | 37                       | 1700                        | 0.34                                  | 400                       |                                   |
| KQ0603TTE72N*    | 4       | 72                      |                             |                             | 1700                     | 0.49                        |                                       |                           |                                   |
| KQ0603TTE82N*    | 5       | 82                      |                             |                             | 1400                     | 0.54                        |                                       |                           |                                   |
| KQ0603TTER10*    | 6       | 100                     | 150                         | 32                          | 1350                     | 0.58                        | 300                                   |                           |                                   |
| KQ0603TTER11*    | 7       | 110                     |                             |                             | 1300                     | 0.61                        |                                       |                           |                                   |
| KQ0603TTER12*    | 8       | 120                     |                             |                             | 1400                     | 0.65                        |                                       |                           |                                   |
| KQ0603TTER15*    | 9       | 150                     | 100                         | 25                          | 1300                     | 1.4                         | 160                                   |                           |                                   |
| KQ0603TTER18*    | 0       | 180                     |                             |                             | 1300                     | 2.2                         | 140                                   |                           |                                   |
| KQ0603TTER20*    | U       | 200                     |                             |                             | 1200                     | 24                          | 2.3                                   | 130                       |                                   |
| KQ0603TTER21*    | V       | 210                     | 2.5                         | 120                         |                          |                             |                                       |                           |                                   |
| KQ0603TTER22*    | 1       | 220                     | 1000                        | 2.4                         |                          |                             | 170                                   |                           |                                   |
| KQ0603TTER25*    | W       | 250                     | 100                         | 24                          | 900                      | 2.3                         | 170                                   |                           |                                   |
| KQ0603TTER27*    | 2       | 270                     |                             |                             | 840                      | 3.17                        | 110                                   |                           |                                   |
| KQ0603TTER30*    | X       | 300                     |                             |                             | 800                      | 3.0                         | 100                                   |                           |                                   |
| KQ0603TTER33*    | 3       | 330                     | 50                          | 30                          | 700                      | 3.7                         | 80                                    |                           |                                   |
| KQ0603TTER39*    | 4       | 390                     |                             |                             | 640                      | 1.21                        | 190                                   |                           |                                   |
| KQ0603TTER47*    | 5       | 470                     |                             |                             | 610                      | 1.26                        | 170                                   |                           |                                   |
| KQ0603TTER51*    | V       | 510                     | 50                          | 30                          | 560                      | 2.09                        | 130                                   |                           |                                   |
| KQ0603TTER56*    | 6       | 560                     |                             |                             | 590                      | 1.89                        | 150                                   |                           |                                   |
| KQ0603TTER62*    | W       | 620                     |                             |                             | 590                      | 1.89                        | 150                                   |                           |                                   |

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

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

11/30/17

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) |      |     |     |     |
|------------------|---------|-------------------------|-----------------------------|------------------------------|--------------------------|-----------------------------|---------------------------------------|---------------------------|-----------------------------------|------|-----|-----|-----|
| 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                         | J: ±5%<br>K: ±10%            | 50                       | 1500                        | 6000                                  | 0.08                      | 600                               |      |     |     |     |
| KQ0805TTE6N8*    | 1       | 6.8                     |                             |                              |                          | 1000                        | 5500                                  | 0.11                      |                                   |      |     |     |     |
| KQ0805TTE8N2*    | 2       | 8.2                     |                             |                              |                          | 4700                        | 0.12                                  |                           |                                   |      |     |     |     |
| KQ0805TTE12N*    | 3       | 12                      |                             |                              |                          | 4000                        | 0.15                                  |                           |                                   |      |     |     |     |
| KQ0805TTE15N*    | 4       | 15                      |                             |                              |                          | 3400                        | 0.17                                  |                           |                                   |      |     |     |     |
| KQ0805TTE18N*    | 5       | 18                      |                             |                              |                          | 3300                        | 0.20                                  |                           |                                   |      |     |     |     |
| KQ0805TTE20N*    | Y       | 20                      |                             |                              |                          | 500                         | 60                                    | 2600                      | 0.22                              | 500  |     |     |     |
| KQ0805TTE22N*    | 6       | 22                      |                             |                              |                          |                             |                                       | 2500                      | 0.25                              |      |     |     |     |
| KQ0805TTE27N*    | 7       | 27                      |                             |                              |                          |                             |                                       | 2050                      | 0.27                              |      |     |     |     |
| KQ0805TTE33N*    | 8       | 33                      |                             |                              |                          |                             |                                       | 2000                      | 0.29                              |      |     |     |     |
| KQ0805TTE39N*    | 9       | 39                      | 1650                        | 0.34                         |                          |                             |                                       |                           |                                   |      |     |     |     |
| KQ0805TTE43N*    | 4       | 43                      | 1550                        | 0.34                         |                          |                             |                                       |                           |                                   |      |     |     |     |
| KQ0805TTE47N*    | 0       | 47                      | 1450                        | 0.38                         |                          |                             |                                       |                           |                                   |      |     |     |     |
| KQ0805TTE56N*    | 1       | 56                      | 1300                        | 0.42                         | 400                      |                             |                                       |                           |                                   |      |     |     |     |
| KQ0805TTE68N*    | 2       | 68                      | 1200                        | 0.46                         |                          |                             |                                       |                           |                                   |      |     |     |     |
| KQ0805TTE82N*    | 3       | 82                      | 1100                        | 0.51                         |                          |                             |                                       |                           |                                   |      |     |     |     |
| KQ0805TTER10*    | 4       | 100                     | 920                         | 0.56                         |                          |                             |                                       |                           |                                   |      |     |     |     |
| KQ0805TTER12*    | 5       | 120                     | 250                         | 48                           |                          | 870                         | 0.64                                  |                           |                                   |      |     |     |     |
| KQ0805TTER15*    | 6       | 150                     |                             |                              |                          | 850                         | 0.70                                  |                           |                                   |      |     |     |     |
| KQ0805TTER16*    | H       | 160                     |                             |                              |                          | 100                         | 33                                    | 850                       | 0.70                              | 350  |     |     |     |
| KQ0805TTER17*    | J       | 170                     |                             |                              |                          |                             |                                       | 650                       | 1.0                               |      |     |     |     |
| KQ0805TTER18*    | 7       | 180                     |                             |                              |                          |                             |                                       | 600                       | 1.4                               |      | 310 |     |     |
| KQ0805TTER19*    | D       | 190                     |                             |                              |                          |                             |                                       | 560                       | 1.5                               |      | 290 |     |     |
| KQ0805TTER20*    | E       | 200                     |                             |                              | 50                       |                             |                                       | 100                       | 375                               | 1.76 | 250 |     |     |
| KQ0805TTER21*    | F       | 210                     |                             |                              |                          |                             |                                       |                           | 340                               | 1.9  | 230 |     |     |
| KQ0805TTER22*    | 8       | 220                     |                             |                              |                          |                             |                                       |                           | 25                                | 23   | 188 | 2.2 | 190 |
| KQ0805TTER23*    | K       | 230                     |                             |                              |                          |                             |                                       |                           |                                   |      | 200 | 2.3 |     |
| KQ0805TTER24*    | L       | 240                     | 215                         | 2.35                         | 180                      |                             |                                       |                           |                                   |      |     |     |     |
| KQ0805TTER25*    | G       | 250                     |                             |                              |                          |                             |                                       |                           |                                   |      |     |     |     |
| KQ0805TTER27*    | 9       | 270                     | 50                          | J: ±5%<br>K: ±10%            | 50                       | 4100                        | 0.08                                  | 1000                      |                                   |      |     |     |     |
| KQ0805TTER33*    | 0       | 330                     |                             |                              |                          | 3300                        | 0.09                                  |                           |                                   |      |     |     |     |
| KQ0805TTER39*    | 1       | 390                     |                             |                              |                          | 3000                        | 0.10                                  |                           |                                   |      |     |     |     |
| KQ0805TTER47*    | 2       | 470                     |                             |                              |                          | 2500                        | 0.11                                  |                           |                                   |      |     |     |     |
| KQ0805TTER56*    | 3       | 560                     |                             |                              |                          | 2400                        | 0.12                                  |                           |                                   |      |     |     |     |
| KQ0805TTER68*    | 4       | 680                     |                             |                              |                          | 1600                        | 0.13                                  |                           |                                   |      |     |     |     |
| KQ0805TTER72*    | A       | 720                     |                             |                              |                          | 1600                        | 0.14                                  |                           |                                   |      |     |     |     |
| KQ0805TTER82*    | 5       | 820                     |                             |                              |                          |                             |                                       |                           |                                   |      |     |     |     |
| KQ1008TTE10N*    | 10N     | 10                      | 50                          | J: ±5%<br>K: ±10%<br>M: ±20% | 50                       | 4100                        | 0.08                                  | 1000                      |                                   |      |     |     |     |
| KQ1008TTE12N*    | 12N     | 12                      |                             |                              |                          | 3300                        | 0.09                                  |                           |                                   |      |     |     |     |
| KQ1008TTE15N*    | 15N     | 15                      |                             |                              |                          | 3000                        | 0.10                                  |                           |                                   |      |     |     |     |
| KQ1008TTE18N*    | 18N     | 18                      |                             |                              |                          | 2500                        | 0.11                                  |                           |                                   |      |     |     |     |
| KQ1008TTE22N*    | 22N     | 22                      |                             |                              |                          | 2400                        | 0.12                                  |                           |                                   |      |     |     |     |
| KQ1008TTE27N*    | 27N     | 27                      |                             |                              |                          | 1600                        | 0.13                                  |                           |                                   |      |     |     |     |
| KQ1008TTE33N*    | 33N     | 33                      |                             |                              |                          | 1600                        | 0.14                                  |                           |                                   |      |     |     |     |

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

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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) |
|------------------|---------|-------------------------|-----------------------------|-----------------------------|--------------------------|-----------------------------|---------------------------------------|---------------------------|-----------------------------------|
| KQ1008TTE39N*    | 39N     | 39                      | 50                          | J: ±5%,K:±10%<br>M:±20%     | 60                       | 350                         | 1500                                  | 0.15                      | 1000                              |
| KQ1008TTE47N*    | 47N     | 47                      |                             |                             | 65                       |                             | 1300                                  | 0.16                      |                                   |
| KQ1008TTE56N*    | 56N     | 56                      |                             |                             | 60                       |                             | 1000                                  | 0.18                      |                                   |
| KQ1008TTE68N*    | 68N     | 68                      |                             |                             | 60                       |                             | 950                                   | 0.20                      |                                   |
| KQ1008TTE82N*    | 82N     | 82                      |                             |                             | 60                       |                             | 850                                   | 0.22                      |                                   |
| KQ1008TTER10*    | R10     | 100                     | 25                          | G: ±2%<br>J: ±5%<br>K: ±10% | 45                       | 100                         | 0.56                                  | 650                       |                                   |
| KQ1008TTER12*    | R12     | 120                     |                             |                             |                          |                             | 0.63                                  |                           |                                   |
| KQ1008TTER15*    | R15     | 150                     |                             |                             |                          |                             | 0.70                                  |                           |                                   |
| KQ1008TTER18*    | R18     | 180                     |                             |                             |                          |                             | 0.77                                  |                           |                                   |
| KQ1008TTER22*    | R22     | 220                     |                             |                             |                          |                             | 0.84                                  |                           |                                   |
| KQ1008TTER27*    | R27     | 270                     |                             |                             |                          |                             | 0.91                                  |                           |                                   |
| KQ1008TTER33*    | R33     | 330                     |                             |                             |                          |                             | 1.05                                  |                           |                                   |
| KQ1008TTER39*    | R39     | 390                     |                             |                             |                          |                             | 1.12                                  |                           |                                   |
| KQ1008TTER47*    | R47     | 470                     |                             |                             |                          |                             | 1.19                                  |                           |                                   |
| KQ1008TTER56*    | R56     | 560                     |                             |                             |                          |                             | 1.33                                  |                           |                                   |
| KQ1008TTER62*    | R62     | 620                     |                             |                             |                          |                             | 1.40                                  |                           |                                   |
| KQ1008TTER68*    | R68     | 680                     |                             |                             |                          |                             | 1.47                                  |                           |                                   |
| KQ1008TTER75*    | R75     | 750                     |                             |                             |                          |                             | 1.54                                  |                           |                                   |
| KQ1008TTER82*    | R82     | 820                     |                             |                             |                          |                             | 1.61                                  |                           |                                   |
| KQ1008TTER91*    | R91     | 910                     |                             |                             |                          |                             | 1.68                                  |                           |                                   |
| KQ1008TTE1R0*    | 1R0     | 1000                    | 7.9                         | G: ±2%<br>J: ±5%<br>K: ±10% | 35                       | 50                          | 1.75                                  | 370                       |                                   |
| KQ1008TTE1R2*    | 1R2     | 1200                    |                             |                             |                          |                             | 1.6                                   |                           |                                   |
| KQ1008TTE1R5*    | 1R5     | 1500                    |                             |                             |                          |                             | 1.7                                   |                           |                                   |
| KQ1008TTE1R8*    | 1R8     | 1800                    |                             |                             |                          |                             | 1.9                                   |                           |                                   |
| KQ1008TTE2R2*    | 2R2     | 2200                    |                             |                             |                          |                             | 2.2                                   |                           |                                   |
| KQ1008TTE2R7*    | 2R7     | 2700                    |                             |                             |                          |                             | 2.3                                   |                           |                                   |
| KQ1008TTE3R3*    | 3R3     | 3300                    |                             |                             |                          |                             | 2.7                                   |                           |                                   |
| KQ1008TTE3R9*    | 3R9     | 3900                    |                             |                             |                          |                             | 2.8                                   |                           |                                   |
| KQ1008TTE4R7*    | 4R7     | 4700                    |                             |                             |                          |                             | 3.1                                   |                           |                                   |
| KQ1008TTE5R6*    | 5R6     | 5600                    |                             |                             |                          |                             | 2.5                                   |                           |                                   |
| KQ1008TTE6R8*    | 6R8     | 6800                    | 7.9                         | 2.8                         |                          |                             |                                       |                           |                                   |
| KQ1008TTE8R2*    | 8R2     | 8200                    | 15                          | 3.0                         |                          |                             |                                       |                           |                                   |
| KQ1008TTE100*    | 100     | 10000                   | 15                          | 3.4                         |                          |                             |                                       |                           |                                   |

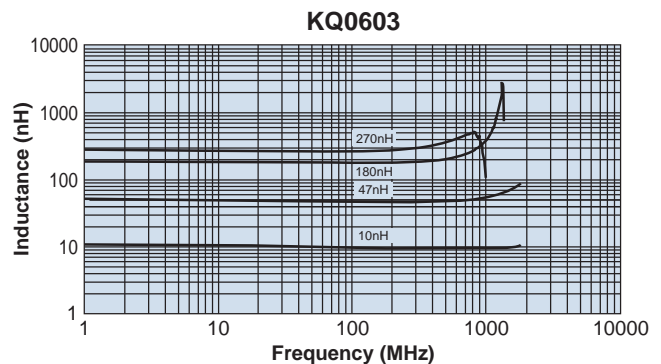
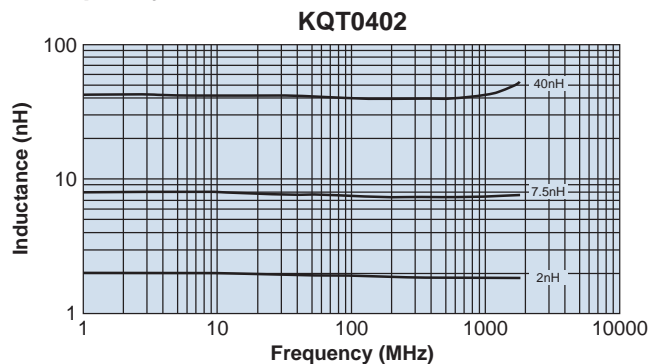
\* Add tolerance character (C, G, H, J, K, M)

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

L-Frequency Characteristics

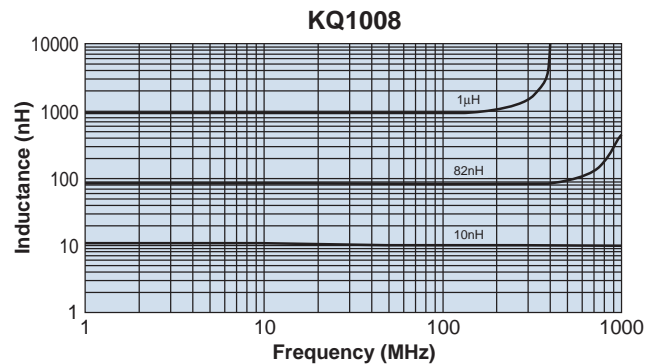
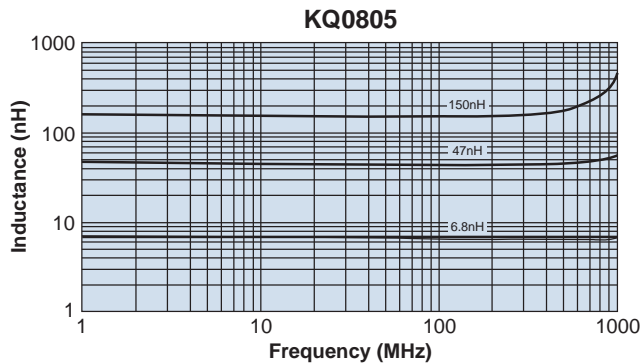


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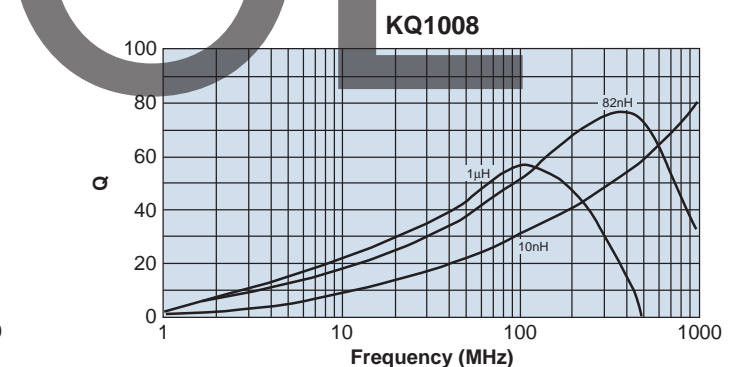
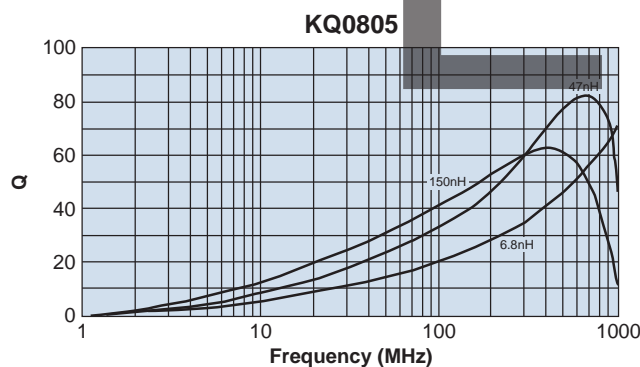
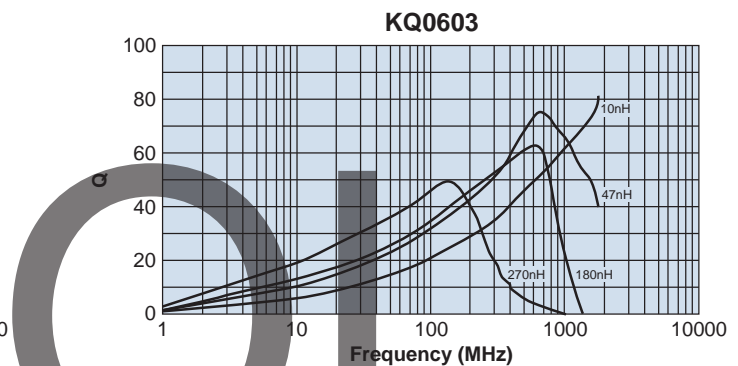
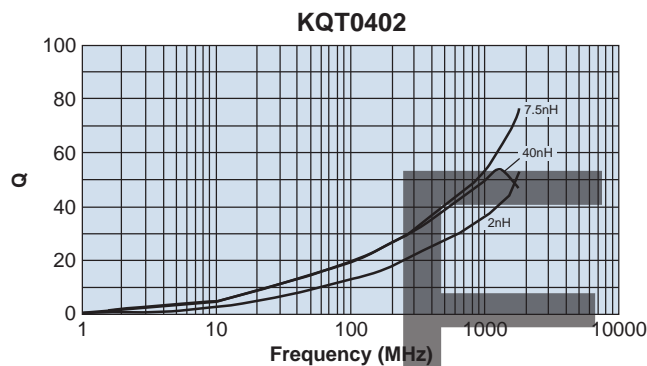
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**environmental applications** (continued)

**L-Frequency Characteristics**



**Q-Frequency Characteristics**



Test equipment: HP4291A impedance analyzer

**Performance Characteristics**

| Parameter                    | Requirements Maximum $\Delta L/L$ $\Delta Q/Q$                                             |                                                    | Test Method                                |
|------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------------------|
|                              | Limit                                                                                      | Typical                                            |                                            |
| Resistance to Soldering Heat | No significant abnormality in appearance<br>$\Delta L/L: \pm 5\%$ , $\Delta Q/Q: \pm 10\%$ | $\Delta L/L: \pm 2.7\%$<br>$\Delta Q/Q: \pm 6.6\%$ | 260°C $\pm$ 5°C, 10s $\pm$ 1s              |
| Rapid Change of Temperature  | No significant abnormality in appearance<br>$\Delta L/L: \pm 5\%$ , $\Delta Q/Q: \pm 10\%$ | $\Delta L/L: \pm 2.1\%$<br>$\Delta Q/Q: \pm 5.3\%$ | -40°C (30min.)/ +125°C (30min.) 100 cycles |
| Low Temperature Exposure     | No significant abnormality in appearance<br>$\Delta L/L: \pm 5\%$ , $\Delta Q/Q: \pm 10\%$ | $\Delta L/L: \pm 1.8\%$<br>$\Delta Q/Q: \pm 2.8\%$ | -40°C $\pm$ 2°C, 1000h                     |
| High Temperature Exposure    | No significant abnormality in appearance<br>$\Delta L/L: \pm 5\%$ , $\Delta Q/Q: \pm 10\%$ | $\Delta L/L: \pm 1.8\%$<br>$\Delta Q/Q: \pm 5.3\%$ | 125°C $\pm$ 2°C, 1000h                     |
| Moisture Exposure            | No significant abnormality in appearance<br>$\Delta L/L: \pm 5\%$ , $\Delta Q/Q: \pm 10\%$ | $\Delta L/L: \pm 0.9\%$<br>$\Delta Q/Q: \pm 6.9\%$ | 40°C $\pm$ 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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