

SQC Series



The SQC Series is a type of miniature wire-wound chip inductor designed on a special ferrite core. They are excellent for use in DC power supply circuits.

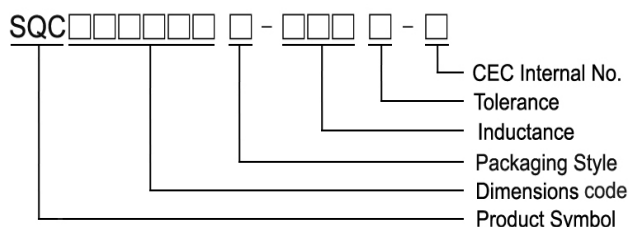
Features

- RoHS compliant
- Low DC resistance, high current capacity, and high impedance characteristics
- Excellent solder heat resistance
- Both flow and reflow soldering methods can be employed
- Available in 4 sizes

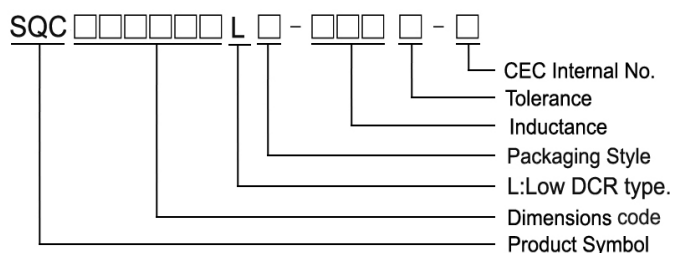
Applications

- Personal computers
- Disk drives and computer peripherals
- Pagers, cordless phone
- DC power supply circuit

Product Identification



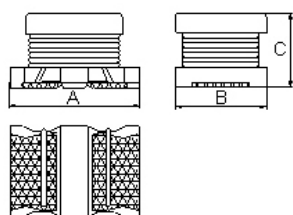
- Packaging: T : Tape and Reel



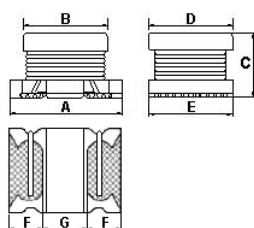
- Packaging: T : Tape and Reel

Shape and Dimensions

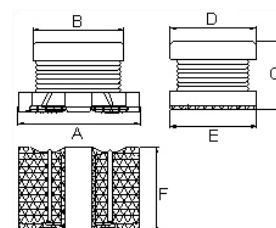
SQC321618 & SQC322520 & SQC322520LT



SQC322517 & SQC322517HP



SQC453226

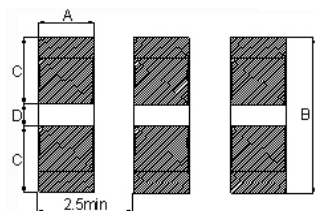


Dimensions in mm

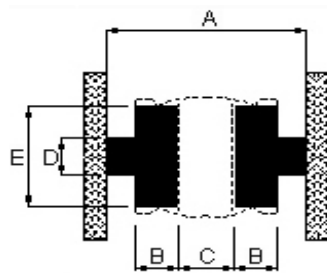
| TYPE | A | B | C | D | E | F | G |
|-------------|-----------|-----------|-------------|-----------|-----------|-----------|-----------|
| SQC321618 | 3.2 ± 0.3 | 1.6 ± 0.2 | 1.8 ± 0.2 | - | - | - | - |
| SQC322517 | 3.2 ± 0.3 | 2.5 ± 0.2 | 1.55 ± 0.15 | 2.5 ± 0.2 | 2.5 ± 0.2 | 0.9 ± 0.3 | 1.3 ± 0.2 |
| SQC322517HP | 3.2 ± 0.3 | 2.5 ± 0.2 | 1.55 ± 0.15 | 2.5 ± 0.2 | 2.5 ± 0.2 | 0.9 ± 0.3 | 1.3 ± 0.2 |
| SQC322520 | 3.2 ± 0.3 | 2.5 ± 0.2 | 2.0 ± 0.2 | - | - | - | - |
| SQC322520LT | 3.2 ± 0.3 | 2.5 ± 0.2 | 2.0 ± 0.2 | - | - | - | - |
| SQC453226 | 4.5 ± 0.3 | 3.6 ± 0.2 | 2.6 ± 0.2 | 3.2 ± 0.2 | 3.2 ± 0.2 | 3.2 ± 0.2 | - |

Recommended Pattern

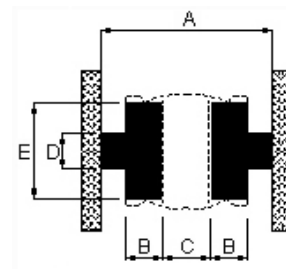
SQC321618



SQC322517 & SQC322517HP



SQC322520 & SQC322520LT & SQC453226



Dimensions in mm

| TYPE | A | B | C | D | E |
|-------------|-----|-----|------|-----|-----|
| SQC321618 | 1.5 | 4.5 | 1.75 | 1.0 | - |
| SQC322517 | 5.5 | 1.0 | 1.3 | 1.0 | 2.0 |
| SQC322517HP | 5.5 | 1.0 | 1.3 | 1.0 | 2.0 |
| SQC322520 | 5.5 | 1.0 | 1.3 | 1.0 | 2.0 |
| SQC322520LT | 5.5 | 1.0 | 1.3 | 1.0 | 2.0 |
| SQC453226 | 7.5 | 1.5 | 1.5 | 1.5 | 3.0 |

Electrical Characteristics

| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (MHz) | SRF (MHz) Min | RDC (Ω) Max | Rated current (mA) |
|-------------------|-----------------|----------------|----------------------|---------------|-------------|--------------------|
| SQC321618T-R12□-N | 0.12 | 20 | 1 | 250 | 0.112 | 970 |
| SQC321618T-R22□-N | 0.22 | 20 | 1 | 250 | 0.140 | 850 |
| SQC321618T-R47□-N | 0.47 | 20 | 1 | 180 | 0.210 | 700 |
| SQC321618T-1R0□-N | 1.0 | 20 | 1 | 100 | 0.364 | 510 |
| SQC321618T-2R2□-N | 2.2 | 20 / 10 | 1 | 50 | 0.533 | 430 |
| SQC321618T-2R7□-N | 2.7 | 20 / 10 | 1 | 45 | 0.580 | 340 |
| SQC321618T-4R7□-N | 4.7 | 20 / 10 | 1 | 31 | 0.845 | 340 |
| SQC321618T-6R8□-N | 6.8 | 20 / 10 | 1 | 25 | 1.430 | 280 |
| SQC321618T-100□-N | 10 | 20 / 10 / 5 | 1 | 20 | 1.690 | 230 |
| SQC321618T-220□-N | 22 | 20 / 10 / 5 | 1 | 14 | 3.900 | 160 |
| SQC321618T-470□-N | 47 | 20 / 10 / 5 | 1 | 10 | 10.40 | 100 |
| SQC321618T-820□-N | 82 | 20 / 10 / 5 | 1 | 8 | 13.00 | 90 |
| SQC321618T-101□-N | 100 | 20 / 10 / 5 | 1 | 7 | 15.60 | 80 |

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10% , M=±20%

- Operating temperature range - 25°C ~ 125°C(Including self - temperature rise)
- Rated Current: Self temperature rise shall be limited to 35°C Max. Inductance drop 10% typ.
- Measure Equipment :
 L : Agilent HP4192A
 SRF : Agilent HP4291A
 RDC : CHEN HWA 502

Electrical Characteristics

| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (MHz) | SRF (MHz) Min | RDC (Ω±30%) | Rated current (mA) |
|-------------------|-----------------|----------------|----------------------|---------------|-------------|--------------------|
| SQC322517T-2R2□-N | 2.2 | 20 | 1 | 64 | 0.097 | 790 |
| SQC322517T-3R3□-N | 3.3 | 20 | 1 | 50 | 0.12 | 710 |
| SQC322517T-6R8□-N | 6.8 | 20 | 1 | 32 | 0.25 | 540 |
| SQC322517T-100□-N | 10 | 20 / 10 | 1 | 26 | 0.30 | 350 |
| SQC322517T-220□-N | 22 | 20 / 10 | 1 | 19 | 0.71 | 250 |
| SQC322517T-101□-N | 100 | 20 / 10 | 1 | 10 | 3.50 | 100 |

Note: When ordering, please specify tolerance code. Tolerance : K=±10% , M=±20%

- Operating temperature range - 25°C ~ 125°C(Including self - temperature rise)
- Rated Current for Inductance drop 10% from its value with current
- Measure Equipment :
 L : Agilent HP4192A
 SRF : Agilent HP4287A
 RDC : CHEN HWA 502

Electrical Characteristics

| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (MHz) | SRF (MHz) Min | RDC (Ω±20%) | Rated current (mA) | Irms (mA) |
|--------------------|-----------------|----------------|----------------------|---------------|-------------|--------------------|-----------|
| SQC322517HP-R47□-N | 0.47 | 30 | 1 | 100 | 0.030 | 3400 | 2550 |
| SQC322517HP-1R0□-N | 1.0 | 30 | 1 | 100 | 0.045 | 2300 | 2050 |
| SQC322517HP-1R5□-N | 1.5 | 30 | 1 | 70 | 0.057 | 1750 | 1750 |
| SQC322517HP-2R2□-N | 2.2 | 30 / 20 | 1 | 70 | 0.076 | 1550 | 1600 |
| SQC322517HP-3R3□-N | 3.3 | 30 / 20 | 1 | 50 | 0.120 | 1250 | 1200 |
| SQC322517HP-4R7□-N | 4.7 | 30 / 20 | 1 | 40 | 0.180 | 1000 | 1000 |
| SQC322517HP-6R8□-N | 6.8 | 30 / 20 | 1 | 40 | 0.240 | 850 | 850 |
| SQC322517HP-100□-N | 10 | 30 / 20 | 1 | 30 | 0.380 | 750 | 700 |
| SQC322517HP-150□-N | 15 | 30 / 20 | 1 | 25 | 0.700 | 550 | 500 |
| SQC322517HP-220□-N | 22 | 30 / 20 | 1 | 20 | 0.810 | 500 | 450 |
| SQC322517HP-330□-N | 33 | 30 / 20 | 1 | 14 | 1.050 | 360 | 320 |
| SQC322517HP-470□-N | 47 | 30 / 20 | 1 | 11 | 1.480 | 280 | 240 |

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10% , M=±20%

- Operating temperature range - 25°C ~ 125°C(Including self - temperature rise)
- Rated Current : Self temperature rise shall be limited to 35°C Max Inductance drop 10% typ.
- Measure Equipment :
 L : Agilent HP4192A
 SRF : Agilent HP4291A
 RDC : CHEN HWA 502

Rate Current : HP4284A+HP42841A

Electrical Characteristics

| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (MHz) | SRF (MHz) Min | RDC (Ω±30%) | Rated current (mA) |
|-------------------|-----------------|----------------|----------------------|---------------|-------------|--------------------|
| SQC322520T-R47□-N | 0.47 | 20 | 1 | 150 | 0.042 | 1100 |
| SQC322520T-1R0□-N | 1.0 | 20 | 1 | 96 | 0.09 | 1000 |
| SQC322520T-2R2□-N | 2.2 | 20 | 1 | 64 | 0.13 | 600 |
| SQC322520T-3R3□-N | 3.3 | 20 / 10 | 1 | 60 | 0.15 | 600 |
| SQC322520T-3R9□-N | 3.9 | 20 | 1 | 50 | 0.16 | 500 |
| SQC322520T-4R7□-N | 4.7 | 20 | 1 | 43 | 0.20 | 450 |
| SQC322520T-6R8□-N | 6.8 | 20 | 1 | 30 | 0.26 | 400 |
| SQC322520T-100□-N | 10 | 20 / 10 | 1 | 26 | 0.44 | 300 |
| SQC322520T-150□-N | 15 | 20 / 10 | 1 | 22 | 0.55 | 350 |
| SQC322520T-220□-N | 22 | 20 / 10 | 1 | 19 | 0.71 | 250 |
| SQC322520T-270□-N | 27 | 20 / 10 | 1 | 15 | 0.90 | 230 |
| SQC322520T-330□-N | 33 | 20 / 10 | 1 | 15 | 1.10 | 200 |
| SQC322520T-470□-N | 47 | 20 / 10 | 1 | 15 | 1.30 | 170 |
| SQC322520T-560□-N | 56 | 20 / 10 | 1 | 12 | 2.30 | 150 |
| SQC322520T-101□-N | 100 | 20 / 10 | 1 | 10 | 3.50 | 100 |
| SQC322520T-151□-N | 150 | 20 / 10 / 5 | 1 | 7 | 6.00 | 80 |
| SQC322520T-221□-N | 220 | 20 / 10 / 5 | 1 | 6.8 | 8.40 | 70 |
| SQC322520T-271□-N | 270 | 20 / 10 | 1 | 6 | 10.0 | 65 |
| SQC322520T-331□-N | 330 | 20 / 10 / 5 | 1 | 5.6 | 10.0 | 60 |
| SQC322520T-391□-N | 390 | 20 / 10 | 1 | 5 | 17.0 | 60 |
| SQC322520T-471□-N | 470 | 20 / 10 | 0.001 | 5 | 19.0 | 60 |
| SQC322520T-561□-N | 560 | 20 / 10 | 0.001 | 5 | 22.0 | 60 |

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10% , M=±20%

- Operating temperature range - 25°C ~ 125°C(Including self - temperature rise)
- Rated Current : Self temperature rise shall be limited to 35°C Max Inductance drop 10% typ.
- Measure Equipment :
L : Agilent HP4192A
SRF : Agilent HP4291A
RDC : CHEN HWA 502
Rate Current : HP4284A+HP42841A

Electrical Characteristics (LOW DCR Type)

| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (MHz) | SRF (MHz) Min | RDC (Ω±30%) | Rated current (mA) |
|--------------------|-----------------|----------------|----------------------|---------------|-------------|--------------------|
| SQC322520LT-R15□-N | 0.15 | 20 | 1 | 400 | 0.028 | 1450 |
| SQC322520LT-R27□-N | 0.27 | 20 | 1 | 250 | 0.034 | 1250 |
| SQC322520LT-R47□-N | 0.47 | 20 | 1 | 150 | 0.042 | 1100 |
| SQC322520LT-1R0□-N | 1.0 | 20 | 1 | 100 | 0.060 | 1000 |
| SQC322520LT-1R5□-N | 1.5 | 20 | 1 | 85 | 0.085 | 900 |
| SQC322520LT-2R2□-N | 2.2 | 20 | 1 | 64 | 0.097 | 790 |
| SQC322520LT-3R3□-N | 3.3 | 20 | 1 | 55 | 0.13 | 700 |
| SQC322520LT-4R7□-N | 4.7 | 20 / 10 | 1 | 43 | 0.15 | 650 |
| SQC322520LT-6R8□-N | 6.8 | 20 | 1 | 30 | 0.21 | 600 |
| SQC322520LT-100□-N | 10 | 20 / 10 | 1 | 26 | 0.30 | 450 |

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10% , M=±20%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Rated Current : Self temperature rise shall be limited to 35°C Max Inductance drop 10% typ.
- Measure Equipment :
L : Agilent HP4192A
SRF : Agilent HP4291A
RDC : CHEN HWA 502
Rate Current : HP4284A+HP42841A

Electrical Characteristics

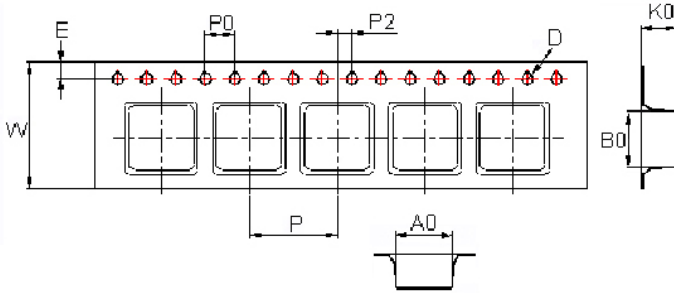
| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (MHz) | SRF (MHz) Min | RDC (Ω) Max | Rated current (mA) |
|-------------------|--------------------|-------------------|----------------------------|------------------|----------------|-----------------------|
| SQC453226T-1R0□-N | 1.0 | 20 | 1 | 100 | 0.08 | 1080 |
| SQC453226T-1R5□-N | 1.5 | 20 | 1 | 85 | 0.09 | 1000 |
| SQC453226T-1R8□-N | 1.8 | 20 | 1 | 65 | 0.10 | 900 |
| SQC453226T-2R2□-N | 2.2 | 20 / 10 | 1 | 60 | 0.11 | 900 |
| SQC453226T-3R3□-N | 3.3 | 20 | 1 | 47 | 0.13 | 800 |
| SQC453226T-4R7□-N | 4.7 | 20 / 10 | 1 | 35 | 0.15 | 750 |
| SQC453226T-6R8□-N | 6.8 | 20 / 10 | 1 | 30 | 0.20 | 720 |
| SQC453226T-100□-N | 10 | 20 / 10 / 5 | 1 | 23 | 0.24 | 650 |
| SQC453226T-150□-N | 15 | 20 / 10 / 5 | 1 | 20 | 0.32 | 570 |
| SQC453226T-220□-N | 22 | 20 / 10 / 5 | 1 | 15 | 0.60 | 420 |
| SQC453226T-330□-N | 33 | 20 / 10 / 5 | 1 | 12 | 1.0 | 310 |
| SQC453226T-470□-N | 47 | 20 / 10 / 5 | 1 | 10 | 1.1 | 280 |
| SQC453226T-680□-N | 68 | 20 / 10 / 5 | 1 | 8.4 | 1.7 | 220 |
| SQC453226T-101□-N | 100 | 20 / 10 / 5 | 1 | 6.8 | 2.2 | 190 |
| SQC453226T-151□-N | 150 | 20 / 10 / 5 | 1 | 5.5 | 3.5 | 130 |
| SQC453226T-221□-N | 220 | 20 / 10 / 5 | 1 | 4.5 | 4.0 | 110 |
| SQC453226T-331□-N | 330 | 20 / 10 / 5 | 1 | 3.6 | 6.8 | 100 |
| SQC453226T-471□-N | 470 | 20 / 10 / 5 | 1 | 3.0 | 8.5 | 90 |
| SQC453226T-561□-N | 560 | 20 / 10 / 5 | 0.001 | 2.5 | 10.4 | 80 |
| SQC453226T-681□-N | 680 | 20 / 10 / 5 | 0.001 | 2.2 | 14.7 | 70 |
| SQC453226T-821□-N | 820 | 20 / 10 / 5 | 0.001 | 2.0 | 20.0 | 60 |
| SQC453226T-102□-N | 1000 | 20 / 10 / 5 | 0.001 | 2.0 | 27.9 | 50 |
| SQC453226T-152□-N | 1500 | 20 / 10 / 5 | 0.001 | 1.8 | 35.0 | 40 |

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10% , M=±20%

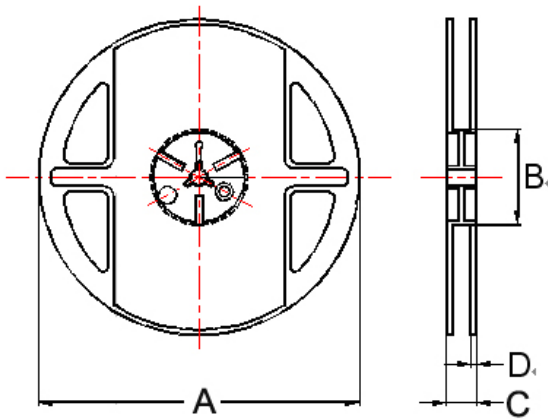
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Rated Current : Self temperature rise shall be limited to 35°C Max Inductance drop 10% typ.
- Measure Equipment :
 - L : Agilent HP4192A
 - SRF : Agilent HP4291A
 - RDC : CHEN HWA 502
 - Rate Current : HP4284A+HP42841A

Packaging Specifications

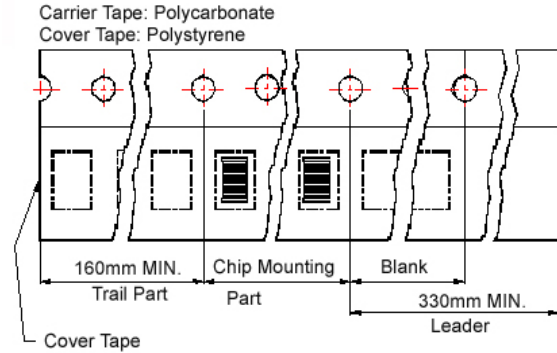
Tape Dimensions



Reel Dimensions



Tape Material



Dimensions in mm

| TYPE | Tape Dimensions | | | | | | | | | Reel Dimensions | | | | Quantity |
|-------------|-----------------|------|------|------|------|----|---|----|----|-----------------|----|------|-----|------------|
| | A0 | B0 | K0 | D | E | W | P | P0 | P2 | A | B | C | D | PCS / REEL |
| SQC321618 | 1.85 | 3.55 | 2.05 | 1.5 | 1.75 | 8 | 4 | 4 | 2 | 178 | 60 | 9 | 1.5 | 2000 |
| SQC322517 | 2.85 | 3.56 | 1.80 | 1.55 | 1.75 | 8 | 4 | 4 | 2 | 178 | 60 | 9 | 1.5 | 2000 |
| SQC322517HP | 2.85 | 3.56 | 1.80 | 1.55 | 1.75 | 8 | 4 | 4 | 2 | 178 | 60 | 9 | 1.5 | 2000 |
| SQC322520 | 2.90 | 3.60 | 2.25 | 1.5 | 1.75 | 8 | 4 | 4 | 2 | 178 | 60 | 9 | 1.5 | 2000 |
| SQC322520LT | 2.90 | 3.60 | 2.25 | 1.5 | 1.75 | 8 | 4 | 4 | 2 | 178 | 60 | 9 | 1.5 | 2000 |
| SQC453226 | 3.60 | 4.90 | 3.00 | 1.5 | 1.75 | 12 | 8 | 4 | 2 | 178 | 60 | 13.2 | 1.5 | 500 |