

SQC Series



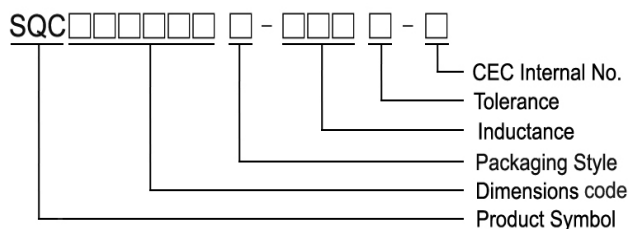
Features

- 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

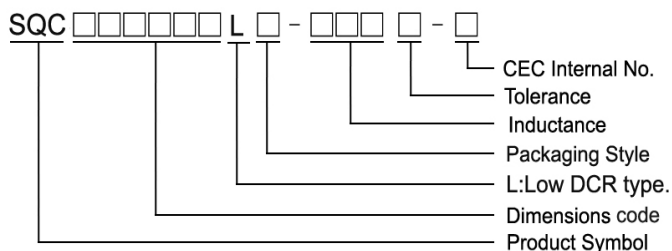
Applications

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

Product Identification



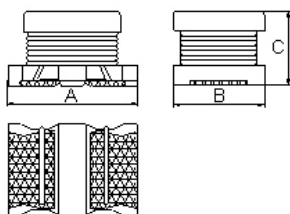
- Packaging: T : Tape and Reel



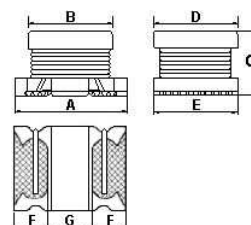
- Packaging: T : Tape and Reel

Shape and Dimensions

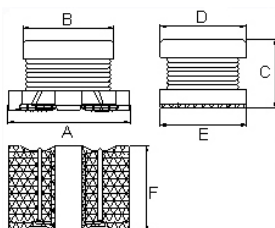
SQC321618 & SQC322520 & SQC322520LT



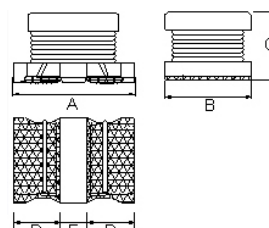
SQC322517 & SQC322517HP



SQC453226



SQC575047



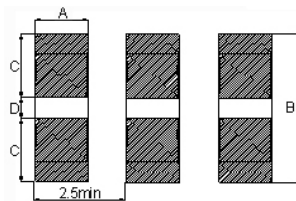
SMD Wire Wound Ferrite Chip Inductors - SQC Series

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 | - |
| SQC575047 | 5.7 ± 0.3 | 5.0 ± 0.3 | 4.7 ± 0.3 | 1.3 Min | 1.7 Min | - | - |

Recommended Pattern

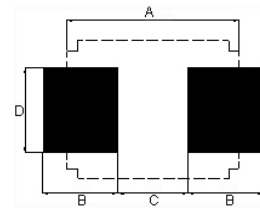
SQC321618



Dimensions in mm

| TYPE | A | B | C | D |
|-----------|-----|-----|------|-----|
| SQC321618 | 1.5 | 4.5 | 1.75 | 1.0 |

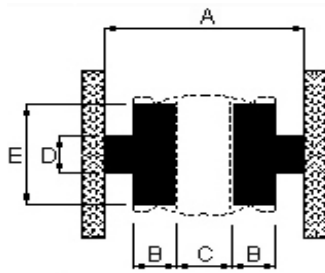
SQC575047



Dimensions in mm

| TYPE | A | B | C | D |
|-----------|-----|-----|-----|-----|
| SQC575047 | 8.0 | 3.0 | 2.0 | 3.5 |

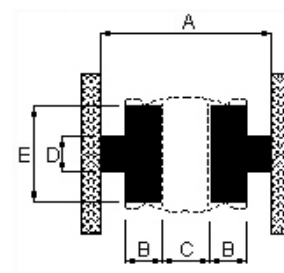
SQC322517 & SQC322517HP



Dimensions in mm

| TYPE | A | B | C | D | E |
|-------------|-----|-----|-----|-----|-----|
| SQC322517 | 5.5 | 1.0 | 1.3 | 1.0 | 2.0 |
| SQC322517HP | 5.5 | 1.0 | 1.3 | 1.0 | 2.0 |

SQC322520 & SQC322520LT & SQC453226



Dimensions in mm

| TYPE | A | B | C | D | E |
|-------------|-----|-----|-----|-----|-----|
| 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) | D.C. Resistance (Ω) Max | SRF (MHz) Min | Rated current (mA) |
|-------------------|-----------------|----------------|----------------------|-------------------------|---------------|--------------------|
| SQC321618T-R12□-N | 0.12 | 20 | 1 | 0.112 | 250 | 970 |
| SQC321618T-R22□-N | 0.22 | 20 | 1 | 0.140 | 250 | 850 |
| SQC321618T-R47□-N | 0.47 | 20 | 1 | 0.210 | 180 | 700 |
| SQC321618T-1R0□-N | 1.0 | 20 | 1 | 0.364 | 100 | 510 |
| SQC321618T-2R2□-N | 2.2 | 20 | 1 | 0.533 | 50 | 430 |
| SQC321618T-4R7□-N | 4.7 | 20 / 10 | 1 | 0.845 | 31 | 340 |
| SQC321618T-100□-N | 10 | 10 / 5 | 1 | 1.690 | 20 | 230 |
| SQC321618T-220□-N | 22 | 10 / 5 | 1 | 3.900 | 14 | 160 |
| SQC321618T-470□-N | 47 | 10 / 5 | 1 | 10.40 | 10 | 100 |
| SQC321618T-101□-N | 100 | 10 / 5 | 1 | 15.60 | 7 | 80 |

- When ordering, please specify tolerance and packaging codes
- Rated Current: Self temperature rise shall be limited to 35°C Max. Inductance drop 10% typ.
- Tolerance : J = ±5% , K = ±10% , M = ±20%
- Operating temp: - 2 5 °C ~ 1 2 5 °C (Including self - temperature rise)
- Soldering Heat: 260°C 10 seconds after 150°C preheat cycle for 4 minutes
- Test Equipment: L: HP4192A. LF Impedance Analyzer
SRF: HP4291A RF Impedance Analyzer
DCR: CH502BC

Electrical Characteristics

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

- When ordering, please specify tolerance and packaging codes
- Rated Current: Inductance drop 10% typ.
- Tolerance : K = ±10% , M = ±20%
- Operating temp: - 2 5 °C ~ 1 2 5 °C (Including self - temperature rise)
- Soldering Heat: 260°C 10 seconds after 150°C preheat cycle for 4 minutes
- Test Equipment: L: HP4284A
SRF: HP4287A
DCR: CH502BC

Electrical Characteristics

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

- When ordering, please specify tolerance and packaging codes
- Rated Current: Self temperature rise shall be limited to 40°C Max. Inductance drop 30% typ.
- Tolerance : T = ±30%
- Operating temp: -40°C ~ 125°C (Including self - temperature rise)
- Soldering Heat: 260°C 10 seconds after 150°C preheat cycle for 4 minutes
- Test Equipment: L: HP4284A
SRF: HP4291A RF Impedance Analyzer
DCR: CH502BC

Electrical Characteristics

| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (MHz) | D.C. Resistance (Ω±30%) | SRF (MHz) Min | Rated current (mA) |
|-------------------|-----------------|----------------|----------------------|-------------------------|---------------|--------------------|
| SQC322520T-1R0□-N | 1.0 | 20 | 1 | 0.09 | 96 | 1000 |
| SQC322520T-2R2□-N | 2.2 | 20 | 1 | 0.13 | 64 | 600 |
| SQC322520T-4R7□-N | 4.7 | 20 | 1 | 0.20 | 43 | 450 |
| SQC322520T-100□-N | 10 | 20 | 1 | 0.44 | 26 | 300 |
| SQC322520T-220□-N | 22 | 20 / 10 | 1 | 0.71 | 19 | 250 |
| SQC322520T-470□-N | 47 | 20 / 10 | 1 | 1.30 | 15 | 170 |
| SQC322520T-101□-N | 100 | 20 / 10 | 1 | 3.50 | 10 | 100 |
| SQC322520T-221□-N | 220 | 20 / 10 | 1 | 8.40 | 6.8 | 70 |
| SQC322520T-331□-N | 330 | 20 / 10 | 1 | 10.0 | 5.6 | 60 |
| SQC322520T-391□-N | 390 | 20 / 10 | 1 | 17.0 | 5.0 | 60 |
| SQC322520T-471□-N | 470 | 20 / 10 | 0.001 | 19.0 | 5.0 | 60 |
| SQC322520T-561□-N | 560 | 20 / 10 | 0.001 | 22.0 | 5.0 | 60 |

- When ordering, please specify tolerance and packaging codes
- Rated Current: Self temperature rise shall be limited to 35°C Max. Inductance drop 10% typ.
- Tolerance : K = ±10% , M = ±20%
- Operating temp: -40°C ~ 125°C (Including self - temperature rise)
- Soldering Heat: 260°C 10 seconds after 150°C preheat cycle for 4 minutes
- Test Equipment: L: HP4192A. LF Impedance Analyzer
SRF: HP4291A RF Impedance Analyzer
DCR: CH502BC

SMD Wire Wound Ferrite Chip Inductors – SQC Series

Electrical Characteristics (LOW DCR Type)

| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (MHz) | D.C. Resistance (Ω±30%) | SRF (MHz) Min | Rated current (mA) |
|--------------------|-----------------|----------------|----------------------|-------------------------|---------------|--------------------|
| SQC322520LT-R15□-N | 0.15 | 20 | 1 | 0.028 | 400 | 1450 |
| SQC322520LT-R27□-N | 0.27 | 20 | 1 | 0.034 | 250 | 1250 |
| SQC322520LT-R47□-N | 0.47 | 20 | 1 | 0.042 | 150 | 1100 |
| SQC322520LT-1R0□-N | 1.0 | 20 | 1 | 0.060 | 100 | 1000 |
| SQC322520LT-2R2□-N | 2.2 | 20 | 1 | 0.097 | 64 | 790 |
| SQC322520LT-4R7□-N | 4.7 | 20 | 1 | 0.15 | 43 | 650 |
| SQC322520LT-100□-N | 10 | 20 / 10 | 1 | 0.30 | 26 | 450 |

- When ordering, please specify tolerance and packaging codes
- Rated Current: Self temperature rise shall be limited to 35°C Max. Inductance drop 10% typ.
- Tolerance : K = ±10% , M = ±20%
- Operating temp: - 2 5 °C ~ 1 2 5 °C (Including self - temperature rise)
- Soldering Heat: 260°C 10 seconds after 150°C preheat cycle for 4 minutes
- Test Equipment: L: HP4192A. LF Impedance Analyzer
SRF: HP4291A RF Impedance Analyzer
DCR: CH502BC

Electrical Characteristics

| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (MHz) | D.C. Resistance (Ω) Max | SRF (MHz) Min | Rated current (mA) |
|-------------------|-----------------|----------------|----------------------|-------------------------|---------------|--------------------|
| SQC453226T-1R0□-N | 1.0 | 20 | 1 | 0.08 | 100 | 1080 |
| SQC453226T-1R5□-N | 1.5 | 20 | 1 | 0.09 | 85 | 1000 |
| SQC453226T-2R2□-N | 2.2 | 20 | 1 | 0.11 | 60 | 900 |
| SQC453226T-3R3□-N | 3.3 | 20 | 1 | 0.13 | 47 | 800 |
| SQC453226T-4R7□-N | 4.7 | 10 / 20 | 1 | 0.15 | 35 | 750 |
| SQC453226T-6R8□-N | 6.8 | 10 / 20 | 1 | 0.20 | 30 | 720 |
| SQC453226T-100□-N | 10 | 5 / 10 | 1 | 0.24 | 23 | 650 |
| SQC453226T-150□-N | 15 | 5 / 10 | 1 | 0.32 | 20 | 570 |
| SQC453226T-220□-N | 22 | 5 / 10 | 1 | 0.60 | 15 | 420 |
| SQC453226T-330□-N | 33 | 5 / 10 | 1 | 1.0 | 12 | 310 |
| SQC453226T-470□-N | 47 | 5 / 10 | 1 | 1.1 | 10 | 280 |
| SQC453226T-680□-N | 68 | 5 / 10 | 1 | 1.7 | 8.4 | 220 |
| SQC453226T-101□-N | 100 | 5 / 10 | 1 | 2.2 | 6.8 | 190 |
| SQC453226T-151□-N | 150 | 5 / 10 | 1 | 3.5 | 5.5 | 130 |
| SQC453226T-221□-N | 220 | 5 / 10 | 1 | 4.0 | 4.5 | 110 |
| SQC453226T-331□-N | 330 | 5 / 10 | 1 | 6.8 | 3.6 | 100 |
| SQC453226T-471□-N | 470 | 5 / 10 | 0.001 | 8.5 | 3.0 | 90 |

- When ordering, please specify tolerance and packaging codes
- Rated Current: Self temperature rise shall be limited to 35°C Max. Inductance drop 10% typ.
- Tolerance : J = ±5% , K = ±10% , M = ±20%
- Operating temp: - 2 5 °C ~ 1 2 5 °C (Including self - temperature rise)
- Soldering Heat: 260°C 10 seconds after 150°C preheat cycle for 4 minutes
- Test Equipment: L: HP4192A. LF Impedance Analyzer
SRF: HP4291A RF Impedance Analyzer
DCR: CH502BC

SMD Wire Wound Ferrite Chip Inductors – SQC Series

Electrical Characteristics

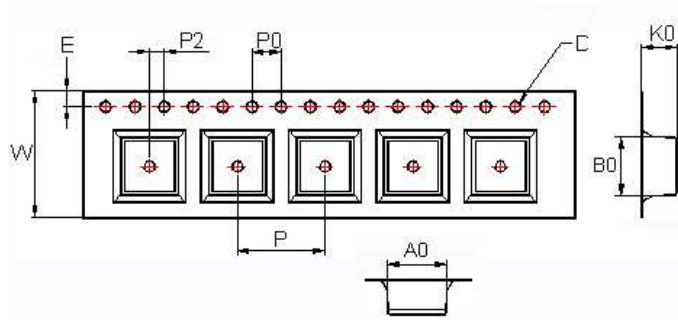
| Part Number | Inductance (μH) | Tolerance ($\pm\%$) | Test Frequency (MHz) | D.C. Resistance (Ω) Max | SRF (MHz) Min | Rated current (mA) |
|-------------------|---------------------------------|--------------------------|----------------------------|-------------------------------------|------------------|-----------------------|
| SQC575047T-R12□-N | 0.12 | 20 | 1 | 0.0098 | 450 | 6000 |
| SQC575047T-R27□-N | 0.27 | 20 | 1 | 0.0140 | 300 | 5300 |
| SQC575047T-R47□-N | 0.47 | 20 | 1 | 0.0182 | 200 | 4800 |
| SQC575047T-1R0□-N | 1.0 | 20 | 1 | 0.0270 | 150 | 4000 |
| SQC575047T-1R5□-N | 1.5 | 20 | 1 | 0.0310 | 110 | 3700 |
| SQC575047T-2R2□-N | 2.2 | 20 | 1 | 0.0410 | 80 | 3200 |
| SQC575047T-3R3□-N | 3.3 | 20 | 1 | 0.0500 | 40 | 2900 |
| SQC575047T-4R7□-N | 4.7 | 20 | 1 | 0.0574 | 30 | 2700 |
| SQC575047T-6R8□-N | 6.8 | 20 | 1 | 0.1040 | 25 | 2000 |
| SQC575047T-100□-N | 10 | 10 / 20 | 1 | 0.1300 | 20 | 1700 |
| SQC575047T-150□-N | 15 | 10 / 20 | 1 | 0.210 | 17 | 1400 |
| SQC575047T-220□-N | 22 | 10 / 20 | 1 | 0.266 | 15 | 1200 |
| SQC575047T-330□-N | 33 | 10 / 20 | 1 | 0.448 | 12 | 900 |
| SQC575047T-470□-N | 47 | 10 / 20 | 1 | 0.560 | 10 | 800 |
| SQC575047T-680□-N | 68 | 10 / 20 | 1 | 0.938 | 7.6 | 640 |
| SQC575047T-101□-N | 100 | 10 / 20 | 0.1 | 1.204 | 6.5 | 560 |
| SQC575047T-151□-N | 150 | 10 / 20 | 0.1 | 2.660 | 5.0 | 420 |
| SQC575047T-221□-N | 220 | 10 / 20 | 0.1 | 3.360 | 4.0 | 320 |
| SQC575047T-331□-N | 330 | 10 / 20 | 0.1 | 6.160 | 3.1 | 270 |
| SQC575047T-471□-N | 470 | 10 / 20 | 0.1 | 7.560 | 2.4 | 240 |
| SQC575047T-681□-N | 680 | 10 / 20 | 0.1 | 11.34 | 1.9 | 190 |
| SQC575047T-102□-N | 1000 | 10 / 20 | 0.01 | 14.42 | 1.7 | 150 |
| SQC575047T-222□-N | 2200 | 10 / 20 | 0.01 | 30.10 | 1.2 | 100 |
| SQC575047T-472□-N | 4700 | 10 / 20 | 0.01 | 61.04 | 0.8 | 70 |
| SQC575047T-103□-N | 10000 | 10 / 20 | 0.01 | 140.0 | 0.5 | 50 |

- When ordering, please specify tolerance and packaging codes
- Rated Current: Self temperature rise shall be limited to 35°C Max. Inductance drop 10% typ.
- Tolerance : K = $\pm 10\%$, M = $\pm 20\%$
- Operating temp : $-25^{\circ}\text{C} \sim 125^{\circ}\text{C}$ (Including self - temperature rise)
- Soldering Heat : 260°C 10 seconds after 150°C preheat cycle for 4 minutes.
- Test equipment: L:HP4192. LF Impedance Analyzer
SRF:HP4291A RF Impedance Analyzer
DCR:CH502BC

SMD Wire Wound Ferrite Chip Inductors – SQC Series

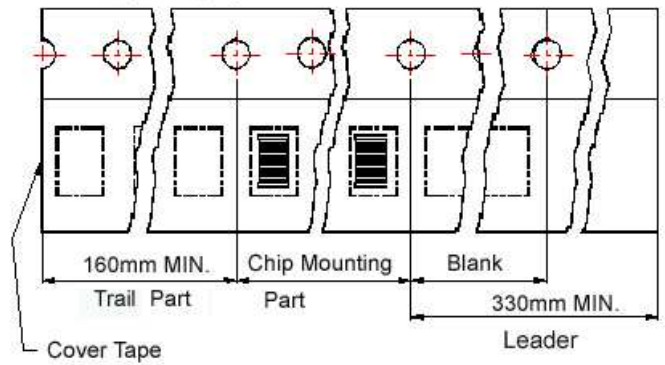
Packaging Specifications

Tape Dimensions

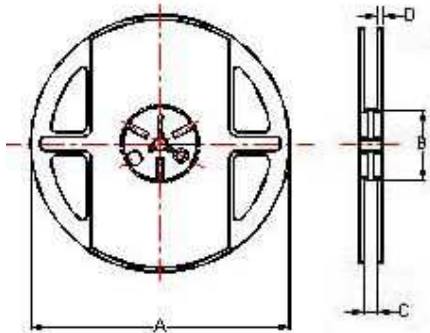


Tape Material

Carrier Tape: Polycarbonate
Cover Tape: Polystyrene



Reel Dimensions



Dimensions in mm

| TYPE | Tape Dimensions | | | | | | | | | Reel Dimensions | | | | Quantity |
|-------------|-----------------|------|------|------|------|----|----|----|----|-----------------|-----|------|-----|------------|
| | A0 | B0 | K0 | D | E | W | P | P0 | P2 | A | B | C | D | PCS / REEL |
| SQC201609 | 1.9 | 2.3 | 1.1 | 1.55 | 1.75 | 8 | 4 | 4 | 2 | 178 | 60 | 9 | 1.5 | 3000 |
| SQC3010 | 3.2 | 3.2 | 1.4 | 1.55 | 1.75 | 8 | 4 | 4 | 2 | 178 | 60 | 9 | 1.5 | 2000 |
| 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 |
| SQC575047 | 5.4 | 6.0 | 5.5 | 1.5 | 1.75 | 16 | 12 | 12 | 2 | 330 | 100 | 17 | 1.5 | 1000 |