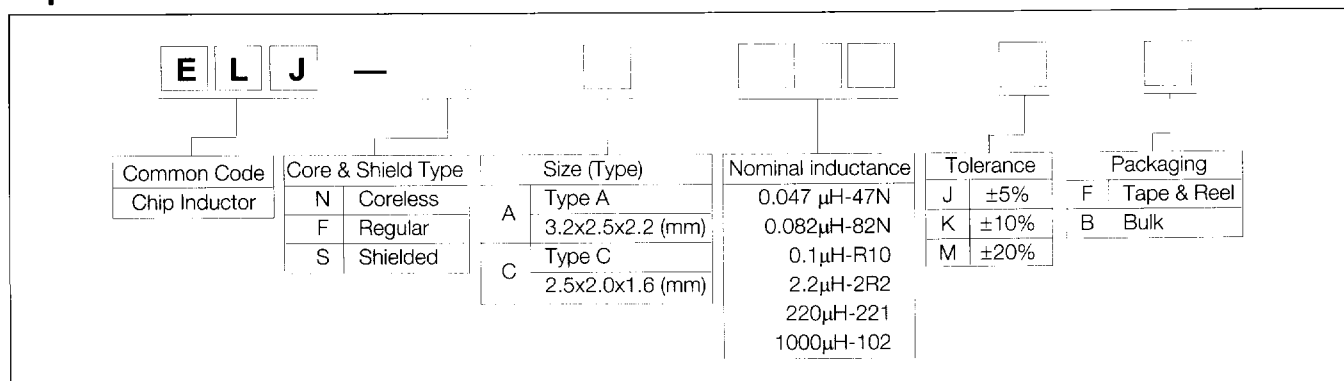


Features

- Very thin wires are wound on a high magnetic effect drum core, resulting in high Q and excellent frequency characteristics
- High reliability because the coil is molded by heat-resistant epoxy resin
- Flow and reflow solderings possible due to adoption of metal terminals

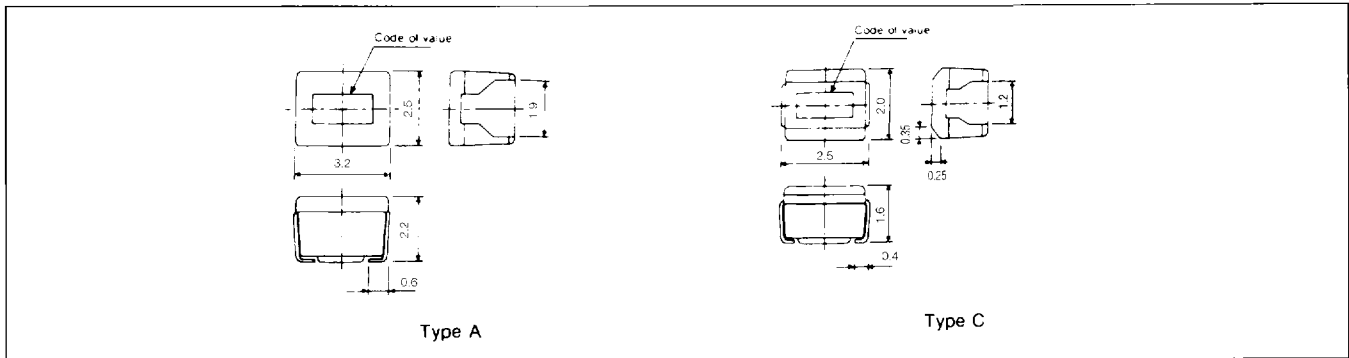


Explanation of Part Numbers



| Type | Size | Features | Inductance Range (µH) |
|-------|---------------------|---|---------------------------------------|
| NA | 3.2x2.5x2.2 (LxWxH) | <ul style="list-style-type: none"> •Coreless type. L is stable with respect to temperature and humidity •Suitable for high-frequency circuits | 0.047 — 8.2 |
| FA | 3.2x2.5x2.2 | <ul style="list-style-type: none"> •Chip inductor for general use •Compact size, with a wide inductance range | 0.22 — 220 |
| SA | 3.2x2.5x2.2 | <ul style="list-style-type: none"> •Use of ferrite resin giving it an additional function of magnetic shield •Compact size, with high inductance | 10 — 270 |
| PA | 3.2x2.5x2.2 | <ul style="list-style-type: none"> •Low DC resistance and large rated DC current •Suitable for power circuits •Use of ferrite resin giving it the additional function of a magnetic shield | 10 — 330 |
| FC/SC | 2.5x2.0x1.6 | <ul style="list-style-type: none"> •Smallest of the coil type inductors; Suitable for a variety of small processing circuits •SC type is equipped with a magnetic shield function | 0.22 — 22 — 100 Type FC Type SC |
| NC | 2.5x2.0x1.6 | <ul style="list-style-type: none"> •Low inductance, tight tolerance and small size. •Suitable for high-frequency circuits •Coreless type. L is stable with respect to temperature and humidity | 0.01 — 0.47 |

Dimensions in mm (not to scale)



Examples (Type FA)

| Part No. | Inductance | | | Q | | SRF* | DCR** | Rated DC Current mA max. |
|-------------|---------------|------------|------------|-------|-----------|----------|---------------|-----------------------------|
| | μH | Freq. MHz | Tolerance | min. | Freq. MHz | MHz min. | Ω max. | |
| ELJ FA R22M | 0.22 | 1.0 | $\pm 20\%$ | 25 | 25.2 | 230 | 0.29 | 360 |
| R27M | 0.27 | | | 25 | | 210 | 0.32 | 345 |
| R33M | 0.33 | | | 25 | | 190 | 0.35 | 330 |
| R39M | 0.39 | | | 25 | | 175 | 0.39 | 305 |
| R47M | 0.47 | | | 25 | | 160 | 0.44 | 290 |
| R56M | 0.56 | | | 25 | | 150 | 0.49 | 275 |
| R68M | 0.68 | | | 25 | | 135 | 0.55 | 260 |
| R82M | 0.82 | | | 25 | | 125 | 0.61 | 245 |
| 1R0M/K | 1.0 | | | 25 | | 115 | 0.69 | 230 |
| 1R2M/K | 1.2 | | | 25 | | 100 | 0.75 | 215 |
| 1R5M/K | 1.5 | 35 | 90 | 0.75 | 210 | | | |
| 1R8M/K | 1.8 | 35 | 85 | 0.82 | 200 | | | |
| 2R2M/K | 2.2 | $\pm 20\%$ | 80 | 0.95 | 190 | | | |
| 2R7M/K | 2.7 | $\pm 10\%$ | 75 | 1.1 | 180 | | | |
| 3R3M/K | 3.3 | | 70 | 1.2 | 180 | | | |
| 3R9M/K | 3.9 | | 65 | 1.3 | 175 | | | |
| 4R7M/K | 4.7 | | 60 | 1.5 | 165 | | | |
| 5R6M/K | 5.6 | | 55 | 1.6 | 160 | | | |
| 6R8M/K | 6.8 | | 50 | 1.8 | 150 | | | |
| 8R2M/K | 8.2 | | 45 | 2.0 | 140 | | | |
| 100K/J | 10 | | 40 | 2.1 | 140 | | | |
| 120K/J | 12 | | 35 | 2.5 | 125 | | | |
| 150K/J | 15 | | 30 | 2.8 | 120 | | | |
| 180K/J | 18 | 30 | 3.3 | 110 | | | | |
| 220K/J | 22 | 30 | 3.7 | 105 | | | | |
| 270K/J | 27 | 30 | 5.0 | 90 | | | | |
| 330K/J | 33 | 30 | 20 | 5.6 | 85 | | | |
| 390K/J | 39 | 30 | 20 | 6.4 | 80 | | | |
| 470K/J | 47 | 30 | 15 | 7.0 | 75 | | | |
| 560K/J | 56 | $\pm 10\%$ | 15 | 8.0 | 70 | | | |
| 680K/J | 68 | $\pm 5\%$ | 15 | 9.0 | 65 | | | |
| 820K/J | 82 | | 10 | 10 | 60 | | | |
| 101K/J | 100 | 25 | 10 | 10 | 60 | | | |
| 121K/J | 120 | 25 | 10 | 11 | 55 | | | |
| 151K/J | 150 | 20 | 8 | 15 | 50 | | | |
| 181K/J | 180 | 0.796 | 20 | 0.796 | 7 | 17 | 50 | |
| 221K/J | 220 | 20 | 7 | 21 | 45 | | | |

* Self-resonant Frequency ** DC Resistance

Examples (Type NA)

| Part No. | Inductance | | | Q | | SRF MHz min. | DCR Ω max. | Rated DC Current mA max. |
|-----------|------------|-----------|-----------|------|-----------|-----------------|---------------|--------------------------------|
| | μH | Freq. MHz | Tolerance | min. | Freq. MHz | | | |
| ELJNA47NM | 0.047 | 100 | ±20% | 10 | 100 | 680 | 0.20 | 450 |
| 56NM | 0.056 | | | | | 600 | 0.22 | 420 |
| 68NM | 0.068 | | | | | 540 | 0.25 | 400 |
| 82NM | 0.082 | | | | | 500 | 0.27 | 380 |
| R10M | 0.1 | | | | | 450 | 0.30 | 360 |
| R12M | 0.12 | | | | | 400 | 0.67 | 240 |
| R15M | 0.15 | 25.2 | ±10% | 10 | 25.2 | 350 | 0.72 | 230 |
| R18M | 0.18 | | | | | 320 | 0.81 | 220 |
| R22K | 0.22 | | | | | 280 | 0.90 | 210 |
| R27K | 0.27 | | | | | 250 | 1.0 | 200 |
| R33K | 0.33 | | | | | 220 | 1.1 | 190 |
| R39K | 0.39 | | | | | 200 | 1.2 | 180 |
| R47K | 0.47 | 1.0 | ±5% | 13 | 7.96 | 180 | 1.4 | 175 |
| R56K | 0.56 | | | | | 160 | 1.5 | 170 |
| R68K | 0.68 | | | | | 150 | 1.7 | 155 |
| R82M | 0.82 | | | | | 135 | 1.9 | 145 |
| 1R0J | 1.0 | | | | | 120 | 2.1 | 125 |
| 1R2J | 1.2 | | | | | 110 | 2.3 | 120 |
| 1R5J | 1.5 | 1.0 | ±5% | 13 | 7.96 | 95 | 2.7 | 115 |
| 1R8J | 1.8 | | | | | 85 | 3.0 | 110 |
| 2R2J | 2.2 | | | | | 80 | 3.2 | 110 |
| 2R7J | 2.7 | | | | | 70 | 3.6 | 105 |
| 3R3J | 3.3 | | | | | 62 | 4.2 | 100 |
| 3R9J | 3.9 | | | | | 57 | 4.4 | 95 |
| 4R7J | 4.7 | 0.1 | ±10% | 40 | 1.5 | 52 | 7.7 | 70 |
| 5R6J | 5.6 | | | | | 46 | 8.7 | 65 |
| 6R8J | 6.8 | | | | | 42 | 10 | 60 |
| 8R2J | 8.2 | | | | | 38 | 11 | 60 |

Examples (Type SA)

| Part No. | Inductance | | | Q | | SRF MHz min. | DCR Ω max. | Rated DC Current mA max. |
|------------|------------|-----------|-----------|------|-----------|-----------------|---------------|--------------------------------|
| | μH | Freq. MHz | Tolerance | min. | Freq. MHz | | | |
| ELJ SA100K | 10 | 1.0 | ±10% | 40 | 5.0 | 30 | 1.8 | 18 |
| 120K | 12 | | | 40 | | 28 | 2.0 | 17 |
| 150K | 15 | | | 40 | | 25 | 2.2 | 15 |
| 180K | 18 | | | 40 | | 23 | 2.5 | 13 |
| 220K | 22 | | | 40 | | 20 | 2.8 | 12 |
| 270K | 27 | | | 40 | | 18 | 3.2 | 10 |
| 330K | 33 | | | 40 | | 17 | 3.5 | 10 |
| 390K | 39 | | | 40 | | 15 | 3.8 | 9 |
| 470K | 47 | | | 40 | 14 | 4.0 | 8 | |
| 560K | 56 | | | 40 | 13 | 4.5 | 7 | |
| 680K | 68 | | | 40 | 12 | 5.0 | 6 | |
| 820K | 82 | | | 40 | 11 | 6.0 | 6 | |
| 101K | 100 | | | 40 | 10 | 7.0 | 5 | |
| 121K | 120 | | | 40 | 9 | 8.0 | 5 | |
| 151K | 150 | | | 40 | 5 | 9.0 | 5 | |
| 181K | 180 | | | 0.1 | 40 | 5 | 11.0 | 5 |
| 221K | 220 | 40 | 4 | | 12.0 | 5 | | |
| 271K | 270 | 40 | 4 | | 14.0 | 5 | | |

Examples (Type PA)

| Part No. | Inductance | | Q min. | L, Q Test Freq. MHz | SRF* MHz min. | DCR** Ω max. | Rated DC Current mA max. |
|------------|------------|-----------|-----------|------------------------|------------------|-----------------|--------------------------------|
| | μH | Tolerance | | | | | |
| ELJ PA100K | 10 | ±10% | 15 | 2.52 | 23 | 0.50 | 240 |
| 120K | 12 | | 15 | | 21 | 0.60 | 230 |
| 150K | 15 | | 15 | | 18 | 0.74 | 220 |
| 180K | 18 | | 15 | | 17 | 0.90 | 205 |
| 220K | 22 | | 15 | | 15 | 1.15 | 185 |
| 270K | 27 | | 15 | | 15 | 1.45 | 165 |
| 330K | 33 | | 15 | | 15 | 1.65 | 155 |
| 390K | 39 | | 15 | | 15 | 1.90 | 145 |
| 470K | 47 | | 15 | | 15 | 2.25 | 135 |
| 560K | 56 | | 15 | | 15 | 2.25 | 110 |
| 680K | 68 | | 15 | 15 | 3.70 | 105 | |
| 820K | 82 | | 15 | 15 | 4.20 | 100 | |
| 101K | 100 | | 20 | 0.796 | 6.5 | 5.00 | 90 |
| 121K | 120 | | 20 | | 6.0 | 7.00 | 75 |
| 151K | 150 | | 20 | | 5.5 | 8.00 | 70 |
| 181K | 180 | | 20 | | 5.0 | 9.50 | 65 |
| 221K | 220 | | 20 | | 4.0 | 11.00 | 60 |
| 271K | 270 | | 20 | | 3.5 | 14.50 | 55 |
| 331K | 330 | | 20 | | 3.0 | 16.00 | 50 |

* Self-resonant Frequency ** DC Resistance

Examples (Type FC/SC)

| Part No. | Inductance | | Q min. | L, Q Test Freq. MHz | SRF MHz min. | DCR Ω max. | Rated DC Current mA max. | | |
|------------|------------|-----------|-----------|------------------------|-----------------|---------------|--------------------------------|------|-----|
| | μH | Tolerance | | | | | | | |
| ELJ FCR22M | 0.22 | ±20% | 25 | 25.2 | 230 | 0.7 | 190 | | |
| FCR27M | 0.27 | | 25 | | 210 | 0.75 | 180 | | |
| FCR33M | 0.33 | | 25 | | 190 | 0.85 | 170 | | |
| FCR39M | 0.39 | | 25 | | 175 | 0.95 | 160 | | |
| FCR47M | 0.47 | | 25 | | 160 | 1.0 | 155 | | |
| FCR56M | 0.56 | | 25 | | 150 | 1.1 | 150 | | |
| FCR68M | 0.68 | | 25 | | 135 | 1.25 | 140 | | |
| FCR82M | 0.82 | | 25 | | 125 | 1.4 | 130 | | |
| FC1R0M/K | 1.0 | ±20% | 25 | 7.96 | 115 | 0.65 | 195 | | |
| FC1R2M/K | 1.2 | | 25 | | 100 | 0.75 | 180 | | |
| FC1R5M/K | 1.5 | | 25 | | 90 | 0.85 | 170 | | |
| FC1R8M/K | 1.8 | | 25 | | 85 | 0.95 | 160 | | |
| FC2R2M/K | 2.2 | | 25 | | 80 | 1.05 | 155 | | |
| FC2R7M/K | 2.7 | | ±20% | | 25 | 75 | 1.2 | 145 | |
| FC3R3M/K | 3.3 | | ±10% | | 25 | 65 | 1.3 | 135 | |
| FC3R9M/K | 3.9 | | | | 25 | 60 | 1.4 | 130 | |
| FC4R7M/K | 4.7 | | ±10% | | 25 | 2.52 | 55 | 1.55 | 125 |
| FC5R6M/K | 5.6 | | | | 25 | | 50 | 1.75 | 120 |
| FC6R8M/K | 6.8 | 25 | | 45 | 1.95 | | 115 | | |
| FC8R2M/K | 8.2 | 25 | | 40 | 2.2 | | 105 | | |
| FC100K/J | 10 | ±10% | | 25 | 32 | | 3.7 | 80 | |
| FC120K/J | 12 | | | 25 | 30 | | 4.1 | 75 | |
| FC150K/J | 15 | | | ±5% | 25 | | 28 | 5.0 | 70 |
| FC180K/J | 18 | | | 25 | 25 | | 5.4 | 65 | |
| FC220K/J | 22 | | 25 | 22 | 6.0 | 60 | | | |
| ELJ SC270K | 27 | ±10% | 40 | 0.796 | 20 | 4.5 | 18 | | |
| SC330K | 33 | | 40 | | 18 | 5.2 | 14 | | |
| SC390K | 39 | | 40 | | 15 | 5.7 | 13 | | |
| SC470K | 47 | | 40 | | 14 | 6.6 | 12 | | |
| SC560K | 56 | | 40 | | 13 | 6.5 | 17 | | |
| SC680K | 68 | | 25 | | 13 | 6.5 | 17 | | |
| SC820K | 82 | | 25 | | 13 | 7.4 | 14 | | |
| SC101K | 100 | | 25 | | 12 | 8.4 | 10 | | |

Examples (Type NC)

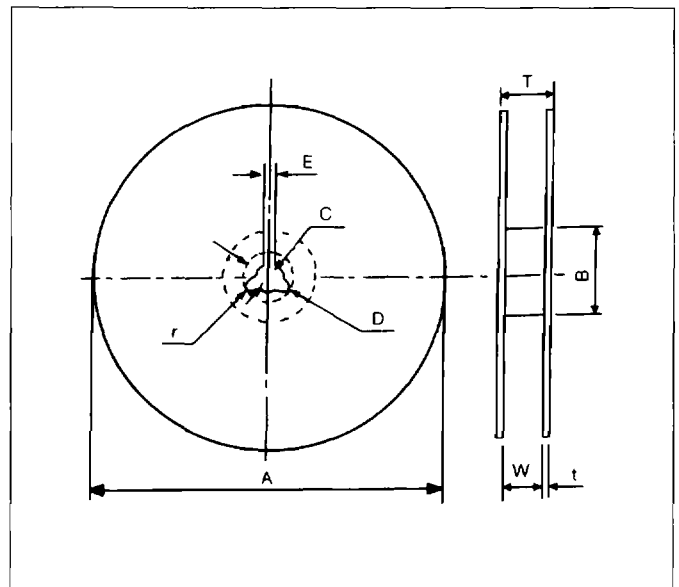
| Part No. | Inductance | | Q min. | L, Q Test Freq. MHz | SRF* MHz min. | DCR** Ω max. | Rated DC Current mA max. |
|--------------|------------|------------|-----------|------------------------|------------------|------------------------|--------------------------------|
| | μ H | Tolerance | | | | | |
| ELJ NC10NK/M | 0.01 | $\pm 10\%$ | 10 | 100 | 2500 | 0.32 | 280 |
| NC12NK/M | 0.012 | | 10 | | 2200 | 0.34 | 270 |
| NC15NK/M | 0.015 | | 10 | | 1800 | 0.38 | 255 |
| NC18NK/M | 0.018 | | 10 | | 1550 | 0.40 | 250 |
| NC22NK/M | 0.022 | | 15 | | 1350 | 0.43 | 240 |
| NC27NK/M | 0.027 | | 15 | | 1150 | 0.47 | 230 |
| NC22NK/M | 0.033 | | 15 | | 1000 | 0.51 | 220 |
| NC39NK/M | 0.039 | | 15 | | 890 | 0.55 | 215 |
| NC47NK/M | 0.047 | | 15 | | 770 | 0.59 | 205 |
| NC56NK/M | 0.056 | | 15 | | 670 | 0.63 | 200 |
| NC68NK/M | 0.068 | | 15 | | 590 | 0.68 | 190 |
| NC82NK/M | 0.082 | | 15 | | 520 | 0.73 | 185 |
| NCR10K/M | 0.1 | | 10 | | 460 | 0.80 | 175 |
| NCR12K/M | 0.12 | | 10 | | 400 | 0.87 | 170 |
| NCR15K/M | 0.15 | 10 | 340 | 0.98 | 160 | | |
| NCR18K/M | 0.18 | 10 | 300 | 1.05 | 155 | | |
| NCR22K | 0.22 | $\pm 10\%$ | 10 | 25.2 | 260 | 1.15 | 145 |
| NCR27K | 0.27 | | 10 | | 230 | 1.25 | 140 |
| NCR33K | 0.33 | | 10 | | 200 | 1.37 | 135 |
| NCR39K | 0.39 | | 10 | | 180 | 1.47 | 130 |
| NCR47K | 0.47 | | 10 | | 160 | 1.58 | 125 |

Packaging Specifications

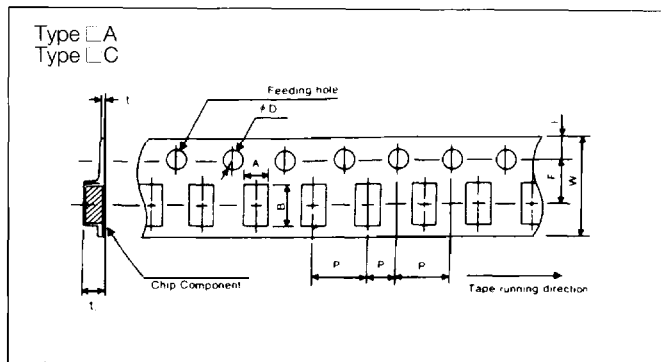
Standard Packing Quantity

| | Tape & Reel | Bulk |
|--------|-------------------------------|----------------|
| ELJ- A | 2,000 pcs/reel ($\phi 178$) | 5,000 pcs/pack |
| ELJ- C | 2,000 pcs/reel ($\phi 178$) | 5,000 pcs/pack |

Reel Dimensions



Tape Dimensions



Tape

| Type | Code | A | B | W | F | E | P ₁ | P ₂ | P ₃ | ϕD_0 | ϕD_1 | t ₁ | t ₂ |
|------|------|-----|-----|---|-----|------|----------------|----------------|----------------|------------|------------|----------------|----------------|
| A | | 2.8 | 3.6 | 8 | 3.5 | 1.75 | 4.0 | 2.0 | 4.0 | 1.5 | — | (0.3) | 2.3 |
| C | | 2.4 | 2.9 | 8 | 3.5 | 1.75 | 4.0 | 2.0 | 4.0 | 1.5 | 1.1 | (0.3) | 1.85 |

Reel

| Type | Code | A | B | C | D | E | W | T | t | r |
|------|------|-----|---------|----|----|-----|----|---|---|-----|
| A | | 178 | 50 min. | 13 | 21 | 2.0 | 10 | — | — | 1.0 |
| C | | 178 | 50 min. | 13 | 21 | 2.0 | 10 | — | — | 1.0 |