



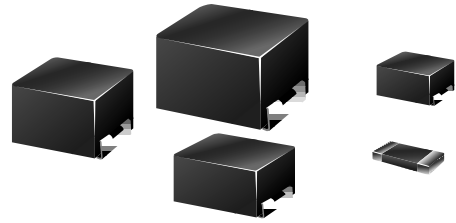
**THE DATASHEET OF  
ELJFA1R0MF**



## Chip Inductors

Series: Chip

Type: RE, ND, NC, NA, FD,  
FC, FA, SA, PB, PC, PA



Non-winding (RE) and wire wound types chip inductors for automatic mounting and high-density mounting.

**Industrial property:** Patents 4.

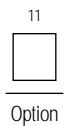
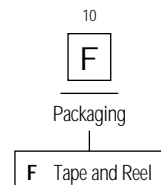
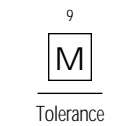
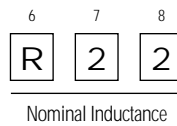
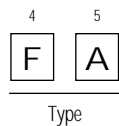
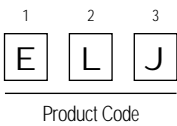
■ Features

- High Q
- Good for mounting
- Allowable range (1.5 nH to 1,000 μH)

■ Recommended Applications

- CTV, VTR, HIC, HDD, FDD, cordless telephones, portable telephones, pagers, video cameras

■ Explanation of Part Numbers



| Types    | Style               |                     |                     |                     |                     |
|----------|---------------------|---------------------|---------------------|---------------------|---------------------|
|          | E<br>1608<br>(0603) | D<br>2012<br>(0805) | C<br>2520<br>(1008) | A<br>3225<br>(1210) | B<br>4532<br>(1812) |
| Coreless | RE                  | ND                  | NC                  | NA                  | —                   |
| Regular  | —                   | FD                  | FC                  | FA                  | FB                  |
| Shield   | —                   | —                   | —                   | SA                  | —                   |
| Power    | —                   | —                   | PC                  | PA                  | —                   |

|     |   |         |
|-----|---|---------|
| 2N2 | → | 2.2 nH  |
| 22N | → | 22 nH   |
| R22 | → | 0.22 μH |
| 2R2 | → | 2.2 μH  |
| 220 | → | 22 μH   |
| 221 | → | 220 μH  |
| 102 | → | 1000 μH |

|   |         |
|---|---------|
| D | ±0.3 nH |
| J | ±15%    |
| K | ±10%    |
| M | ±20%    |

Size unit: mm (inch)

■ Inductance, Size Guide

| Type Name                                |   | L Value ( $\mu\text{H}$ ) |      |     |     |    |     | Notes   |  |
|--|---|---------------------------|------|-----|-----|----|-----|---|--|
|  |   | 0.001                     | 0.01 | 0.1 | 1.0 | 10 | 100 | 1000  |  |
| Non-Magnetic Core (Ceramic, Resin, etc.) | <b>1608 (0603) RE</b><br>Refer to EL8                 |                           |      |     |     |    |     | <ul style="list-style-type: none"> <li>• Low inductance, tight tolerance</li> <li>• Stable L value, against an environmental condition</li> <li>• Suitable for high-frequency circuits</li> </ul> |  |
|  | <b>2012 (0805) ND</b><br>Refer to EL9                 |                           |      |     |     |    |     |   |  |
|  | <b>2520 (1008) NA</b><br>Refer to EL10                |                           |      |     |     |    |     |   |  |
|  | <b>3225 (1210) NA</b><br>Refer to EL11                |                           |      |     |     |    |     |   |  |
| Normal (Ferrite Core)                    | <b>2012 (0805) FD</b><br>Refer to EL11                |                           |      |     |     |    |     | <ul style="list-style-type: none"> <li>• Suitable for various applications</li> </ul>   |  |
|  | <b>2520 (1008) FC</b><br>Refer to EL12                |                           |      |     |     |    |     |   |  |
|  | <b>3225 (1210) FA</b><br>Refer to EL13                |                           |      |     |     |    |     |   |  |
|  | <b>3225 (1210) SA</b><br>Mag. Shield<br>Refer to EL14 |                           |      |     |     |    |     |   |  |
|  | <b>4532 (1812) FB</b><br>Refer to EL14                |                           |      |     |     |    |     |   |  |
| High Power (Ferrite Core)                | <b>2520 (1008) PC</b><br>Refer to EL15                |                           |      |     |     |    |     | <ul style="list-style-type: none"> <li>• Low DC resistance and large rated DC current</li> <li>• Suitable for power line as choke coil</li> </ul>   |  |
|  | <b>3225 (1210) PA</b><br>Refer to EL15                |                           |      |     |     |    |     |   |  |

Size unit: mm (inch)

## Non-Magnetic Core Types RE, ND, NC, NA

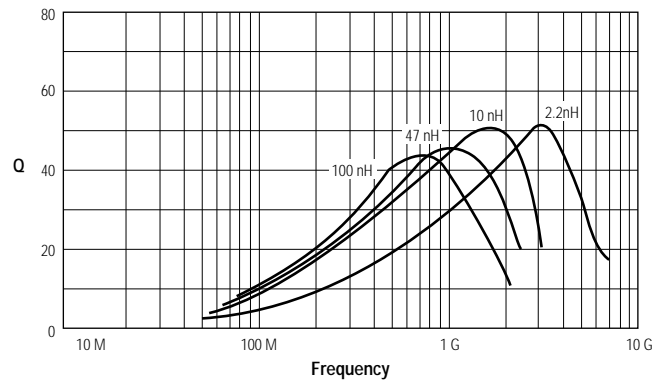
■ Examples: Type 1608 (0603) RE

| Part No.    | Inductance      |           | Q <sup>*1</sup> min.<br>(100 MHz) | Q <sup>*2</sup> Typical<br>(800 MHz) | SRF <sup>*3</sup> min.<br>(MHz) | DCR <sup>*4</sup> max.<br>(Ω) | Rated DC<br>Current max.<br>(mA) |
|-------------|-----------------|-----------|-----------------------------------|--------------------------------------|---------------------------------|-------------------------------|----------------------------------|
|             | nH<br>(100 MHz) | Tolerance |                                   |                                      |                                 |                               |                                  |
| ELJRE1N5DF2 | 1.5             | ±0.3 nH   | 8                                 | 47                                   | 6000                            | 0.07                          | 500                              |
| ELJRE1N8DF2 | 1.8             |           | 8                                 | 45                                   | 6000                            | 0.08                          | 500                              |
| ELJRE2N2DF2 | 2.2             |           | 8                                 | 35                                   | 6000                            | 0.09                          | 500                              |
| ELJRE2N7DF2 | 2.7             |           | 8                                 | 35                                   | 6000                            | 0.10                          | 500                              |
| ELJRE3N3DF2 | 3.3             |           | 9                                 | 35                                   | 5500                            | 0.12                          | 500                              |
| ELJRE3N9JF2 | 3.9             | ±5%       | 9                                 | 36                                   | 5500                            | 0.15                          | 450                              |
| ELJRE4N7JF2 | 4.7             |           | 9                                 | 36                                   | 4800                            | 0.17                          | 450                              |
| ELJRE5N6JF2 | 5.6             |           | 9                                 | 36                                   | 4600                            | 0.18                          | 430                              |
| ELJRE6N8JF2 | 6.8             |           | 9                                 | 36                                   | 3550                            | 0.20                          | 430                              |
| ELJRE8N2JF2 | 8.2             |           | 9                                 | 36                                   | 3500                            | 0.28                          | 400                              |
| ELJRE10NJF2 | 10              |           | 10                                | 37                                   | 2800                            | 0.32                          | 400                              |
| ELJRE12NJF2 | 12              |           | 10                                | 37                                   | 2800                            | 0.35                          | 400                              |
| ELJRE15NJF2 | 15              |           | 10                                | 38                                   | 2500                            | 0.41                          | 350                              |
| ELJRE18NJF2 | 18              |           | 10                                | 39                                   | 2300                            | 0.45                          | 350                              |
| ELJRE22NJF2 | 22              |           | 10                                | 40                                   | 2000                            | 0.50                          | 300                              |
| ELJRE27NJF2 | 27              |           | 10                                | 41                                   | 2000                            | 0.55                          | 300                              |
| ELJRE33NJF2 | 33              |           | 10                                | 40                                   | 1800                            | 0.60                          | 300                              |
| ELJRE39NJF2 | 39              |           | 11                                | 39                                   | 1800                            | 0.80                          | 300                              |
| ELJRE47NJF2 | 47              |           | 11                                | 38                                   | 1800                            | 0.95                          | 250                              |
| ELJRE56NJF3 | 56              |           | 12                                | 35                                   | 1800                            | 1.20                          | 250                              |
| ELJRE68NJF3 | 68              | 12        | 35                                | 1500                                 | 1.30                            | 250                           |                                  |
| ELJRE82NJF3 | 82              | 12        | 33                                | 1500                                 | 1.50                            | 250                           |                                  |
| ELJRE10JF3  | 100             | 12        | 30                                | 1300                                 | 1.80                            | 200                           |                                  |

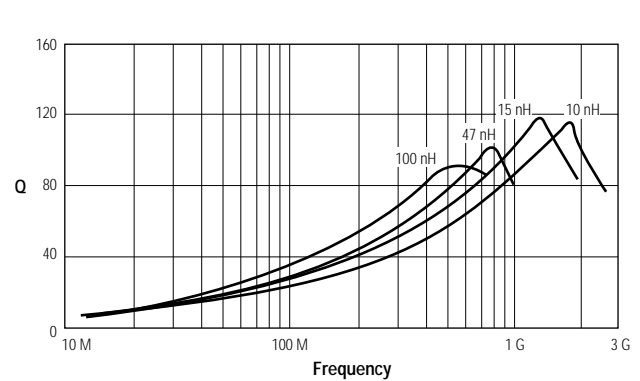
\*<sup>1</sup>Test instrument \*<sup>1</sup> HP4191A \*<sup>2</sup> HP4291A \*<sup>3</sup> Self-resonant frequency \*<sup>4</sup> DC resistance

■ Q-Frequency Characteristics

Type: RE



Type: ND



■ Examples: Type 1202 (0805) ND

| Part No.     | Inductance      |               | Q <sup>*1</sup> min.<br>(100 MHz) | L • Q<br>Test-Frequency<br>(100 MHz) | SRF <sup>*2 *3</sup> min.<br>(MHz) | R DC ±30%<br>(Ω) | IDC max.<br>(mA) |     |
|--------------|-----------------|---------------|-----------------------------------|--------------------------------------|------------------------------------|------------------|------------------|-----|
|              | nH<br>(100 MHz) | Tolerance     |                                   |                                      |                                    |                  |                  |     |
| ELJND10NKF   | 10              | ± 10%         | 10                                | 100                                  | 2500                               | 0.14             | 540              |     |
| ELJND12NKF   | 12              |               |                                   |                                      | 2500                               | 0.18             | 535              |     |
| ELJND15NKF   | 15              |               |                                   |                                      | 2500                               | 0.18             | 520              |     |
| ELJND18NKF   | 18              |               |                                   |                                      | 2000                               | 0.22             | 480              |     |
| ELJND22NKF   | 22              |               |                                   |                                      | 2000                               | 0.22             | 465              |     |
| ELJND27NKF   | 27              |               | 1800                              |                                      | 0.26                               | 455              |                  |     |
| ELJND33NJ/KF | 33              |               | ± 5%<br>± 10%                     |                                      | 15                                 | 1500             | 0.30             | 395 |
| ELJND39NJ/KF | 47              |               |                                   |                                      |                                    | 1500             | 0.31             | 390 |
| ELJND47NJ/KF | 56              |               |                                   |                                      |                                    | 1000             | 0.35             | 385 |
| ELJND56NJ/KF | 68              |               |                                   |                                      |                                    | 800              | 0.39             | 360 |
| ELJND68NJ/KF | 82              | 800           |                                   | 0.44                                 |                                    | 340              |                  |     |
| ELJND82NJ/KF | 82              | 800           |                                   | 0.48                                 | 330                                |                  |                  |     |
| ELJNDR10J/KF | 100             | ± 5%<br>± 10% |                                   | 8                                    | 800                                | 0.66             | 2.85             |     |
| ELJNDR12J/KF | 120             |               |                                   |                                      | 600                                | 0.76             | 275              |     |
| ELJNDR15J/KF | 150             |               |                                   |                                      | 600                                | 1.13             | 230              |     |
| ELJNDR18J/KF | 180             |               |                                   |                                      | 600                                | 1.24             | 195              |     |
| ELJNDR22J/KF | 220             |               | 500                               |                                      | 1.41                               | 170              |                  |     |
| ELJNDR27J/KF | 270             |               | 300                               | 1.41                                 | 170                                |                  |                  |     |
| ELJNDR33J/KF | 330             |               | 10                                | 25.2                                 | 200                                | 1.66             | 160              |     |
| ELJNDR39J/KF | 390             |               |                                   |                                      | 150                                | 1.82             | 150              |     |
| ELJNDR47J/KF | 470             |               |                                   |                                      | 150                                | 1.97             | 145              |     |
| ELJNDR56J/KF | 560             |               |                                   |                                      | 100                                | 2.07             | 140              |     |
| ELJNDR68J/KF | 680             | 100           |                                   |                                      | 2.32                               | 130              |                  |     |
| ELJNDR82J/KF | 820             | 80            | 2.60                              |                                      | 125                                |                  |                  |     |
| ELJND1ROJ/KF | 1000            | 8             | 7.96                              |                                      | 80                                 | 2.98             | 120              |     |

\* Test instrument \*<sup>1</sup> HP4191A \*<sup>2</sup> HP8753B \*<sup>3</sup> Self-resonant frequency

■ Examples: Type 2520 (1008) NC

| Part No.     | Inductance |           | Q min. | L • Q Test-Frequency MHz | SRF* MHz (min.) | DCR** Ω max. | Rated DC Current mA max. |     |      |     |
|--------------|------------|-----------|--------|--------------------------|-----------------|--------------|--------------------------|-----|------|-----|
|              | μH         | Tolerance |        |                          |                 |              |                          |     |      |     |
| ELJNC10NKF   | 0.010      | ± 10%     | 10     | 100                      | 2500            | 0.32         | 280                      |     |      |     |
| ELJNC12NKF   | 0.012      |           |        |                          | 2200            | 0.34         | 270                      |     |      |     |
| ELJNC15NKF   | 0.015      |           |        |                          | 1800            | 0.38         | 255                      |     |      |     |
| ELJNC18NKF   | 0.018      |           |        |                          | 1550            | 0.40         | 250                      |     |      |     |
| ELJNC22NKF   | 0.022      |           |        |                          | 1350            | 0.43         | 240                      |     |      |     |
| ELJNC27NKF   | 0.027      | ± 10%     | 15     | 100                      | 1150            | 0.47         | 230                      |     |      |     |
| ELJNC33NJ/KF | 0.033      |           |        |                          | 1000            | 0.51         | 220                      |     |      |     |
| ELJNC39NJ/KF | 0.039      |           |        |                          | 890             | 0.55         | 215                      |     |      |     |
| ELJNC47NJ/KF | 0.047      |           |        |                          | 770             | 0.59         | 205                      |     |      |     |
| ELJNC56NJ/KF | 0.056      |           |        |                          | 670             | 0.63         | 200                      |     |      |     |
| ELJNC68NJ/KF | 0.068      |           |        |                          | 590             | 0.68         | 190                      |     |      |     |
| ELJNC82NJ/KF | 0.082      |           |        |                          | 520             | 0.73         | 185                      |     |      |     |
| ELJNCR10J/KF | 0.10       |           |        |                          | ± 10%<br>±5%    | 10           | 25.2                     | 460 | 0.80 | 175 |
| ELJNCR12J/KF | 0.12       |           |        |                          |                 |              |                          | 400 | 0.87 | 170 |
| ELJNCR15J/KF | 0.15       |           |        |                          |                 |              |                          | 340 | 0.98 | 160 |
| ELJNCR18J/KF | 0.18       | 300       | 1.05   | 155                      |                 |              |                          |     |      |     |
| ELJNCR22J/KF | 0.22       | 260       | 1.15   | 145                      |                 |              |                          |     |      |     |
| ELJNCR27J/KF | 0.27       | 230       | 1.25   | 140                      |                 |              |                          |     |      |     |
| ELJNCR33J/KF | 0.33       | 200       | 1.37   | 135                      |                 |              |                          |     |      |     |
| ELJNCR39J/KF | 0.39       | 180       | 1.47   | 130                      |                 |              |                          |     |      |     |
| ELJNCR47J/KF | 0.47       | 160       | 1.58   | 125                      |                 |              |                          |     |      |     |
| ELJNCR56J/KF | 0.56       | 145       | 1.70   | 120                      |                 |              |                          |     |      |     |
| ELJNCR68J/KF | 0.68       | 130       | 1.85   | 110                      |                 |              |                          |     |      |     |
| ELJNCR82J/KF | 0.82       | 100       | 2.10   | 100                      |                 |              |                          |     |      |     |

\*Self-Resonant Frequency    \*\* DC Resistance

■ Examples: Type 3225 (1210) NA

| Part No.   | Inductance |           |            | Q    |           | SRF MHz (min.) | DCR $\Omega$ max. | Rated DC Current mA Max. |     |     |     |
|------------|------------|-----------|------------|------|-----------|----------------|-------------------|--------------------------|-----|-----|-----|
|            | $\mu$ H    | Freq. MHZ | Tolerance  | min. | Freq. MHZ |                |                   |                          |     |     |     |
| ELJNA47NMF | 0.047      | 100       | $\pm 20\%$ | 10   | 100       | 680            | 0.20              | 450                      |     |     |     |
| ELJNA56NMF | 0.056      |           |            |      |           | 600            | 0.22              | 420                      |     |     |     |
| ELJNA68NMF | 0.068      |           |            |      |           | 540            | 0.25              | 400                      |     |     |     |
| ELJNA82NMF | 0.082      |           |            |      |           | 500            | 0.27              | 380                      |     |     |     |
| ELJNAR10MF | 0.10       |           |            |      |           | 450            | 0.30              | 360                      |     |     |     |
| ELJNAR12MF | 0.12       | 25.2      | $\pm 20\%$ | 10   | 100       | 400            | 0.67              | 240                      |     |     |     |
| ELJNAR15MF | 0.15       |           |            |      |           | 350            | 0.72              | 230                      |     |     |     |
| ELJNAR18MF | 0.18       |           |            |      |           | 320            | 0.81              | 220                      |     |     |     |
| ELJNAR22KF | 0.22       | 1.0       | $\pm 10\%$ | 10   | 25.2      | 280            | 0.90              | 210                      |     |     |     |
| ELJNAR27KF | 0.27       |           |            |      |           | 250            | 1.0               | 200                      |     |     |     |
| ELJNAR33KF | 0.33       |           |            |      |           | 220            | 1.1               | 190                      |     |     |     |
| ELJNAR39KF | 0.39       |           |            |      |           | 200            | 1.2               | 180                      |     |     |     |
| ELJNAR47KF | 0.47       |           |            |      |           | 180            | 1.4               | 175                      |     |     |     |
| ELKNAR56KF | 0.56       |           |            |      |           | 160            | 1.5               | 170                      |     |     |     |
| ELJNAR68KF | 0.68       |           |            |      |           | 150            | 1.7               | 155                      |     |     |     |
| ELJNAR82KF | 0.82       |           |            |      |           | 135            | 1.9               | 145                      |     |     |     |
| ELJNA1R0KF | 1.0        |           |            |      |           | $\pm 5\%$      | 13                | 7.96                     | 120 | 2.1 | 125 |
| ELJNA1R2JF | 1.2        |           |            |      |           |                |                   |                          | 110 | 2.3 | 120 |
| ELJNA1R5JF | 1.5        |           |            |      |           |                |                   |                          | 95  | 2.7 | 115 |
| ELJNA1R8JF | 1.8        |           |            |      |           |                |                   |                          | 85  | 3.0 | 110 |
| ELJNA2R2JF | 2.2        |           |            |      |           |                |                   |                          | 80  | 3.2 | 110 |
| ELJNA2R7JF | 2.7        |           |            |      |           |                |                   |                          | 70  | 3.6 | 105 |
| ELJNA3R3JF | 3.3        |           |            |      |           |                |                   |                          | 62  | 4.2 | 100 |
| ELJNA3R9JF | 3.9        | 57        | 4.4        | 95   |           |                |                   |                          |     |     |     |
| ELJNA4R7JF | 4.7        | 52        | 7.7        | 70   |           |                |                   |                          |     |     |     |
| ELJNA5R6JF | 5.6        | 46        | 8.7        | 65   |           |                |                   |                          |     |     |     |
| ELJNA6R8JF | 6.8        | 42        | 10         | 60   |           |                |                   |                          |     |     |     |
| ELJNA8R2JF | 8.2        | 38        | 11         | 60   |           |                |                   |                          |     |     |     |

Normal Types FD, FC, FA, SA, FB

■ Examples: Type 3225 (1210) NA

| Part No.   | Inductance |            | Q <sup>*1</sup> min. (100 MHz) | L • Q Test-Frequency (MHz) | SRF <sup>*2 *3</sup> min. (MHz) | R DC $\pm 30\%$ ( $\Omega$ ) | IDC max. (mA) |
|------------|------------|------------|--------------------------------|----------------------------|---------------------------------|------------------------------|---------------|
|            | $\mu$ H    | Tolerance  |                                |                            |                                 |                              |               |
| ELJFDR82KF | 0.81       | $\pm 10\%$ | 8                              | 25.2                       | 370                             | 1.35                         | 190           |
| ELJFD1R0KF | 1.0        |            | 15                             | 7.96                       | 300                             | 1.56                         | 160           |
| ELJFD1R2KF | 1.2        |            |                                |                            | 200                             | 1.60                         | 155           |
| ELJFD1R5KF | 1.5        |            |                                |                            | 100                             | 1.85                         | 150           |
| ELJFD1R8KF | 1.8        |            |                                |                            | 80                              | 1.95                         | 145           |
| ELJFD2R2KF | 2.2        |            |                                |                            | 70                              | 2.27                         | 145           |
| ELJFD2R7KF | 2.7        |            |                                |                            | 60                              | 2.54                         | 140           |
| ELJFD3R3KF | 3.3        |            |                                |                            | 50                              | 2.84                         | 140           |
| ELJFD3R9KF | 3.9        |            |                                |                            | 40                              | 2.92                         | 130           |
| ELJFD4R7KF | 4.7        |            |                                |                            | 30                              | 3.38                         | 130           |

\* Test instrument \*<sup>1</sup> HP4191A \*<sup>2</sup> HP8753B \*<sup>3</sup> Self-resonant frequency

■ Examples: Type 2520 (1008) FC

| Part No.     | Inductance |              | Q min. | L • Q Test-Frequency MHz | SRF* MHz (min.) | DCR** Ω max. | Rated DC Current mA max. |    |
|--------------|------------|--------------|--------|--------------------------|-----------------|--------------|--------------------------|----|
|              | μH         | Tolerance    |        |                          |                 |              |                          |    |
| ELJFCR22M/KF | 0.22       | ±20%<br>±10% |        | 25.2                     | 230             | 0.70         | 190                      |    |
| ELJFCR27M/KF | 0.27       |              |        |                          | 210             | 0.75         | 180                      |    |
| ELJFCR33M/KF | 0.33       |              |        |                          | 190             | 0.85         | 170                      |    |
| ELJFCR39M/KF | 0.39       |              |        |                          | 175             | 0.95         | 160                      |    |
| ELJFCR47M/KF | 0.47       |              |        |                          | 160             | 1.0          | 155                      |    |
| ELJFCR56M/KF | 0.56       |              |        |                          | 150             | 1.1          | 150                      |    |
| ELJFCR68M/KF | 0.68       |              |        |                          | 135             | 1.25         | 140                      |    |
| ELJFCR82M/KF | 0.82       |              |        |                          | 125             | 1.4          | 130                      |    |
| ELJFC1R0K/JF | 1.0        | ±10%<br>±5%  | 25     | 7.95                     | 115             | 0.65         | 195                      |    |
| ELJFC1R2K/JF | 1.2        |              |        |                          | 100             | 0.75         | 180                      |    |
| ELJFC1R5K/JF | 1.5        |              |        |                          | 90              | 0.85         | 170                      |    |
| ELJFC1R8K/JF | 1.8        |              |        |                          | 85              | 0.95         | 160                      |    |
| ELJFC1R2K/JF | 2.2        |              |        |                          | 80              | 1.05         | 155                      |    |
| ELJFC2R7K/JF | 2.7        |              |        |                          | 75              | 1.2          | 145                      |    |
| ELJFC3R3K/JF | 3.3        |              |        |                          | 65              | 1.3          | 135                      |    |
| ELJFC3R9K/JF | 3.9        |              |        |                          | 60              | 1.4          | 130                      |    |
| ELJFC4R7K/JF | 4.7        |              |        | 55                       | 1.55            | 125          |                          |    |
| ELJFC5R6K/JF | 5.6        |              |        | 50                       | 1.75            | 120          |                          |    |
| ELJFC6R8K/JF | 6.8        |              |        | 45                       | 1.95            | 115          |                          |    |
| ELJFC8R2K/JF | 8.2        |              |        | 40                       | 2.2             | 105          |                          |    |
| ELJFC100K/JF | 10         |              |        | 20                       | 2.52            | 32           | 3.5                      | 80 |
| ELJFC120K/JF | 12         |              |        |                          |                 | 30           | 3.8                      | 75 |
| ELJFC150K/JF | 15         |              |        |                          |                 | 28           | 4.4                      | 70 |
| ELJFC180K/JF | 18         |              |        |                          |                 | 25           | 5.0                      | 65 |
| ELJFC220K/JF | 22         | 22           | 5.8    |                          |                 | 60           |                          |    |
| ELJFC270K/JF | 27         | 21           | 6.3    |                          |                 | 115          |                          |    |
| ELJFC330K/JF | 33         | 20           | 7.1    |                          |                 | 110          |                          |    |
| ELJFC390K/JF | 39         | 18           | 9.5    |                          |                 | 90           |                          |    |
| ELJFC470K/JF | 47         | 17           | 11.0   |                          |                 | 80           |                          |    |
| ELJFC560K/JF | 56         | 16           | 12.1   |                          |                 | 75           |                          |    |
| ELJFC680K/JF | 68         | 15           | 16.6   | 70                       |                 |              |                          |    |
| ELJFC820K/JF | 82         | 13           | 19.0   | 65                       |                 |              |                          |    |
| ELJFC101K/JF | 100        | 15           | 0.796  | 122                      | 21.0            | 60           |                          |    |

\*Self-Resonant Frequency \*\* DC Resistance

■ Examples: Type 3225 (1210) FA

| Part No.      | Inductance |              | Q min. | L, Q<br>Test-Frequency<br>MHz | SRF* min.<br>(MHz) | DCR**<br>Ω max. | Rated DC<br>Current<br>mA max. |     |
|---------------|------------|--------------|--------|-------------------------------|--------------------|-----------------|--------------------------------|-----|
|               | μH         | Tolerance    |        |                               |                    |                 |                                |     |
| ELJFAR22M/KF2 | 0.22       | ±20%<br>±10% | 25     | 25.2                          | 230                | 0.29            | 360                            |     |
| ELJFAR27M/KF2 | 0.27       |              |        |                               | 210                | 0.32            | 345                            |     |
| ELJFAR33M/KF2 | 0.33       |              |        |                               | 190                | 0.35            | 330                            |     |
| ELJFAR39M/KF2 | 0.39       |              |        |                               | 175                | 0.39            | 305                            |     |
| ELJFAR47M/KF2 | 0.47       |              |        |                               | 160                | 0.44            | 290                            |     |
| ELJFAR56M/KF2 | 0.56       |              |        |                               | 150                | 0.49            | 275                            |     |
| ELJFAR68M/KF2 | 0.68       |              |        |                               | 135                | 0.55            | 260                            |     |
| ELJFAR82M/KF2 | 0.82       |              |        |                               | 125                | 0.61            | 245                            |     |
| ELJFA1R0K/JF2 | 1.0        | ±10%<br>±5%  | 30     | 7.96                          | 115                | 0.69            | 230                            |     |
| ELJFA1R2K/JF2 | 1.2        |              |        |                               | 100                | 0.75            | 215                            |     |
| ELJFA1R5K/JF  | 1.5        |              |        |                               | 90                 | 0.75            | 210                            |     |
| ELJFA1R8K/JF  | 1.8        |              |        |                               | 85                 | 0.82            | 200                            |     |
| ELJFA2R2K/JF  | 2.2        |              |        |                               | 80                 | 0.95            | 190                            |     |
| ELJFA2R7K/JF  | 2.7        |              |        |                               | 75                 | 1.1             | 180                            |     |
| ELJFA3R3K/JF  | 3.3        |              |        |                               | 65                 | 1.2             | 180                            |     |
| ELJFA3R9K/JF  | 3.9        |              |        |                               | 60                 | 1.3             | 175                            |     |
| ELJFA4R7K/JF  | 4.7        |              |        |                               | 55                 | 1.5             | 165                            |     |
| ELJFA5R6K/JF  | 5.6        |              |        |                               | 50                 | 1.6             | 160                            |     |
| ELJFA6R8K/JF  | 6.8        |              |        | 45                            | 1.8                | 150             |                                |     |
| ELJFA8R2K/JF  | 8.2        |              |        | 40                            | 2.0                | 140             |                                |     |
| ELJFA100K/JF  | 10         |              |        | 25.2                          | 25.2               | 36              | 2.1                            | 140 |
| ELJFA120K/JF  | 12         |              |        |                               |                    | 33              | 2.5                            | 125 |
| ELJFA150K/JF  | 15         |              |        |                               |                    | 30              | 2.8                            | 120 |
| ELJFA180K/JF  | 18         |              |        |                               |                    | 27              | 3.3                            | 110 |
| ELJFA220K/JF  | 22         |              |        |                               |                    | 25              | 3.7                            | 105 |
| ELJFA270K/JF  | 27         |              |        |                               |                    | 22              | 5.0                            | 90  |
| ELJFA330K/JF  | 33         |              |        |                               |                    | 20              | 5.6                            | 85  |
| ELJFA390K/JF  | 39         |              |        |                               |                    | 20              | 6.4                            | 80  |
| ELJFA470K/JF  | 47         | 15           | 7.0    |                               |                    | 75              |                                |     |
| ELJFA560K/JF  | 56         | 15           | 8.0    |                               |                    | 70              |                                |     |
| ELJFA680K/JF  | 68         | 15           | 9.0    | 65                            |                    |                 |                                |     |
| ELJFA820K/JF  | 82         | 11           | 10     | 60                            |                    |                 |                                |     |
| ELJFA101K/JF  | 100        | 20           | 0.796  | 10                            | 10                 | 60              |                                |     |
| ELJFA121K/JF  | 120        |              |        | 10                            | 11                 | 55              |                                |     |
| ELJFA151K/JF  | 150        |              |        | 8                             | 15                 | 50              |                                |     |
| ELJFA181K/JF  | 180        |              |        | 7                             | 17                 | 50              |                                |     |
| ELJFA221K/JF  | 220        |              |        | 7                             | 21                 | 45              |                                |     |

\* Self-resonant frequency \*\* DC resistance

## ■ Examples: Type 3225 (1210) SA

| Part No.   | Inductance |           |           | Q    |           | SRF<br>MHz (min.) | DCR<br>Ω max. | Rated DC<br>Current mA max. |     |   |
|------------|------------|-----------|-----------|------|-----------|-------------------|---------------|-----------------------------|-----|---|
|            | μH         | Freq. MHz | Tolerance | min. | Freq. MHz |                   |               |                             |     |   |
| ELJSA100KF | 10         | 1.0       | ±10%      | 40   | 5.0       | 30                | 1.8           | 18                          |     |   |
| ELJSA120KF | 12         |           |           |      |           | 28                | 2.0           | 17                          |     |   |
| ELJSA150KF | 15         |           |           |      |           | 25                | 2.2           | 15                          |     |   |
| ELJSA180KF | 18         |           |           |      |           | 23                | 2.5           | 13                          |     |   |
| ELJSA220KF | 22         |           |           |      |           | 20                | 2.8           | 12                          |     |   |
| ELJSA270KF | 27         |           |           |      |           | 18                | 3.2           | 10                          |     |   |
| ELJSA330KF | 33         |           |           |      |           | 17                | 3.5           | 10                          |     |   |
| ELJSA390KF | 39         |           |           |      | 15        | 3.8               | 9             |                             |     |   |
| ELJSA470KF | 47         |           |           |      | 14        | 4.0               | 8             |                             |     |   |
| ELJSA560KF | 56         |           |           |      | 13        | 4.5               | 7             |                             |     |   |
| ELJSA680KF | 68         |           |           |      | 1.5       | 40                | 1.5           | 12                          | 5.0 | 6 |
| ELJSA820KF | 82         |           |           |      |           |                   |               | 11                          | 6.0 | 6 |
| ELJSA101KF | 100        |           |           |      |           |                   |               | 10                          | 7.0 | 5 |
| ELJSA121KF | 120        |           |           |      |           |                   |               | 9                           | 8.0 | 5 |
| ELJSA151KF | 150        | 5         | 9.0       | 5    |           |                   |               |                             |     |   |
| ELJSA181KF | 180        | 5         | 11.0      | 5    |           |                   |               |                             |     |   |
| ELJSA221KF | 220        | 4         | 12.0      | 5    |           |                   |               |                             |     |   |
| ELJSA271KF | 270        | 4         | 14.0      | 5    |           |                   |               |                             |     |   |

## ■ Examples: Type 4532 (1812) FB

| Part No.     | Inductance |           |             | Q    |           | SRF*<br>MHz (min.) | DCR**<br>Ω max. | Rated DC<br>Current mA max. |
|--------------|------------|-----------|-------------|------|-----------|--------------------|-----------------|-----------------------------|
|              | μH         | Freq. MHz | Tolerance   | min. | Freq. MHz |                    |                 |                             |
| ELJFB101K/JF | 100        | 0.1       | ±10%<br>±5% | 40   | 2.52      | 6.7                | 8.8             | 105                         |
| ELJFB121K/JF | 120        |           |             |      | 1.5       | 6.1                | 10              | 100                         |
| ELJFB151K/JF | 150        |           |             |      |           | 5.5                | 11              | 95                          |
| ELJFB181K/JF | 180        |           |             |      | 5.1       | 13                 | 85              |                             |
| ELJFB221K/JF | 220        |           |             |      | 0.796     | 4.5                | 13              | 85                          |
| ELJFB271K/JF | 270        |           |             |      |           | 4.1                | 14              | 80                          |
| ELJFB331K/JF | 330        |           |             |      |           | 3.7                | 16              | 75                          |
| ELJFB391K/JF | 390        |           |             |      |           | 3.3                | 19              | 70                          |
| ELJFB471K/JF | 470        |           |             | 30   |           | 3.3                | 31              | 55                          |
| ELJFB561K/JF | 560        |           |             |      |           | 2.7                | 35              | 50                          |
| ELJFB681K/JF | 680        |           |             |      |           | 2.5                | 39              | 50                          |
| ELJFB821K/JF | 820        |           |             |      |           | 2.4                | 45              | 45                          |
| ELJFB102K/JF | 1000       |           |             | 2.1  | 53        | 40                 |                 |                             |

\* Self-resonant frequency •• DC resistance

## High Power Types PC, PA

### ■ Examples: Type 2520 (1008) PC

| Part No.    | Inductance |           | Q min. | L, Q Test-Frequency MHz | SRF* MHz (min.) | DCR** Ω max. | Rated DC Current mA max. |
|-------------|------------|-----------|--------|-------------------------|-----------------|--------------|--------------------------|
|             | μH         | Tolerance |        |                         |                 |              |                          |
| ELJPC1R0MF  | 1.0        | ±20%      | 10     | 7.96                    | 95              | 0.45         | 475                      |
| ELJPC1R5MF  | 1.5        |           |        |                         | 85              | 0.55         | 435                      |
| ELJPC2R2MF  | 2.2        |           |        |                         | 65              | 0.65         | 390                      |
| ELJPC3R3MF  | 3.3        |           |        |                         | 55              | 0.85         | 340                      |
| ELJPC4R7MF  | 4.7        |           |        |                         | 43              | 1.2          | 285                      |
| ELJPC6R8KF2 | 6.8        | ±10%      | 8      | 2.52                    | 39              | 1.3          | 275                      |
| ELJPC100KF  | 10.0       |           |        |                         | 32              | 2.2          | 210                      |
| ELJPC120KF  | 12.0       |           |        |                         | 25              | 2.7          | 195                      |
| ELJPC150KF  | 15.0       |           |        |                         | 21              | 3.2          | 175                      |
| ELJPC220KF  | 22.0       |           |        |                         | 18              | 4.0          | 160                      |
| ELJPC330KF  | 33.0       |           |        |                         | 16              | 6.5          | 120                      |

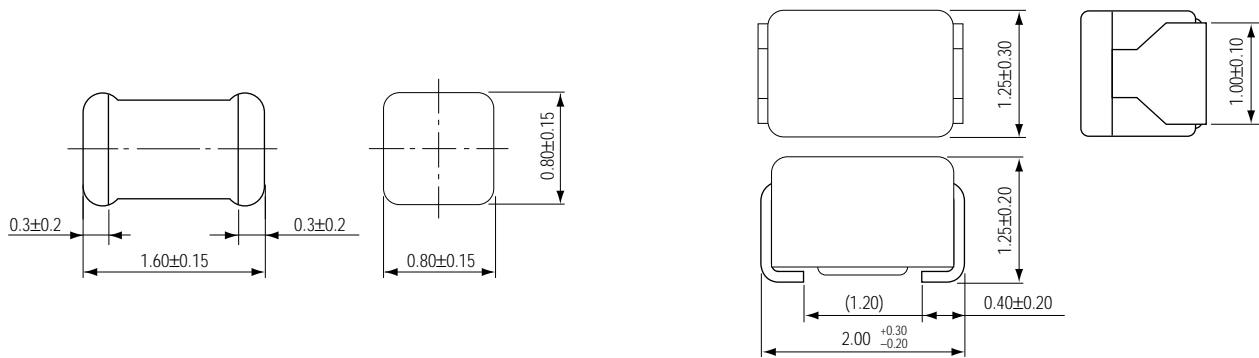
\*Self-Resonant Frequency \*\* DC Resistance

### ■ Examples: Type 3225 (1210) PA

| Part No.   | Inductance |           | Q   | L, Q Test-Frequency MHz | SRF* MHz (min.) | DCR** Ω max. | Rated DC Current mA max. |
|------------|------------|-----------|-----|-------------------------|-----------------|--------------|--------------------------|
|            | μH         | Tolerance |     |                         |                 |              |                          |
| ELJPA1R0MF | 1.0        | ±20%      | 7   | 7.96                    | 150             | 0.15         | 600                      |
| ELJPA1R5MF | 1.5        |           |     |                         | 110             | 0.18         | 550                      |
| ELJPA2R2MF | 2.2        |           |     |                         | 80              | 0.23         | 500                      |
| ELJPA3R3MF | 3.3        |           |     |                         | 58              | 0.28         | 400                      |
| ELJPA4R7MF | 4.7        |           |     |                         | 46              | 0.34         | 350                      |
| ELJPA6R8MF | 6.8        |           |     |                         | 38              | 0.42         | 300                      |
| ELJPA100KF | 10         | ±10%      | 15  | 2.52                    | 23              | 0.50         | 240                      |
| ELJPA120KF | 12         |           |     |                         | 21              | 0.60         | 230                      |
| ELJPA150KF | 15         |           |     |                         | 18              | 0.74         | 220                      |
| ELJPA180KF | 18         |           |     |                         | 17              | 0.90         | 205                      |
| ELJPA220KF | 22         |           |     |                         | 15              | 1.15         | 185                      |
| ELJPA270KF | 27         |           |     |                         | 13              | 1.45         | 165                      |
| ELJPA330KF | 33         |           |     |                         | 12              | 1.65         | 155                      |
| ELJPA390KF | 39         |           |     |                         | 11              | 1.90         | 145                      |
| ELJPA470KF | 47         |           |     |                         | 9.5             | 2.25         | 135                      |
| ELJPA560KF | 56         |           | 8.5 | 3.30                    | 110             |              |                          |
| ELJPA680KF | 68         |           | 7.5 | 3.70                    | 105             |              |                          |
| ELJPA820KF | 82         |           | 7.0 | 4.20                    | 100             |              |                          |
| ELJPA101KF | 100        |           | 20  | 0.796                   | 6.5             | 5.00         | 90                       |
| ELJPA121KF | 120        |           |     |                         | 6.0             | 7.00         | 75                       |
| ELJPA151KF | 150        |           |     |                         | 5.5             | 8.00         | 70                       |
| ELJPA181KF | 180        |           |     |                         | 5.0             | 9.50         | 65                       |
| ELJPA221KF | 220        |           |     |                         | 4.0             | 11.0         | 60                       |
| ELJPA271KF | 270        |           |     |                         | 3.5             | 14.5         | 55                       |
| ELJPA331KF | 330        | 3.0       |     |                         | 16.0            | 50           |                          |

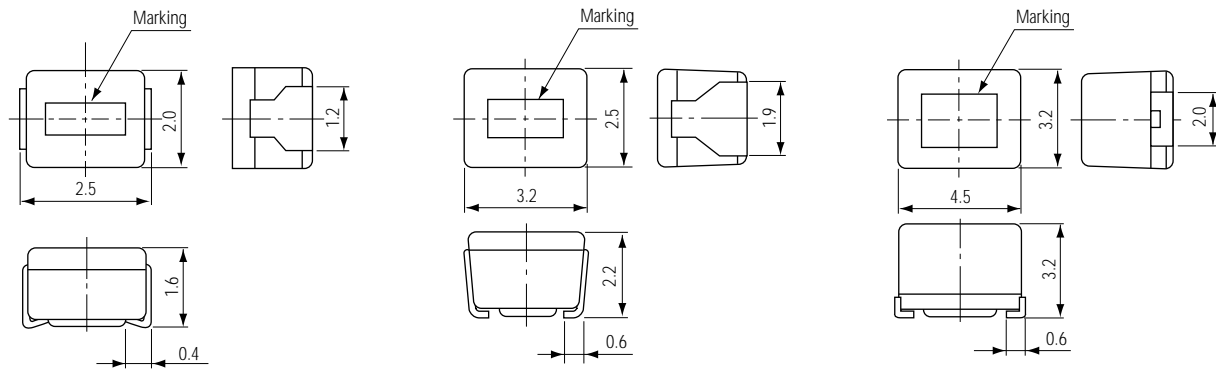
\*Self-Resonant Frequency \*\* DC Resistance

■ Dimensions in mm (not to scale)



**Type RE**  
(1.6 x 0.8 x 0.8)

**Types ND, FD**  
(2.0 x 1.25 x 1.25)

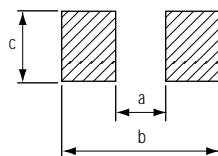


**Types FC, NC, PC**  
(2.5 x 2.0 x 1.6)

**Types FA, SA, NA, PA**  
(3.2 x 2.5 x 2.2)

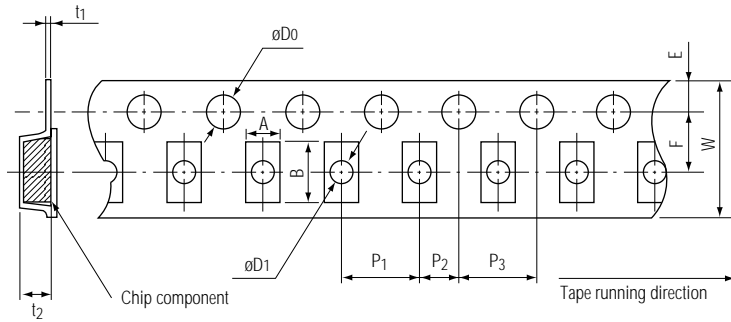
**Type FB**  
(4.5 x 3.2 x 3.2)

■ Recommended Land Pattern in mm (not to scale)



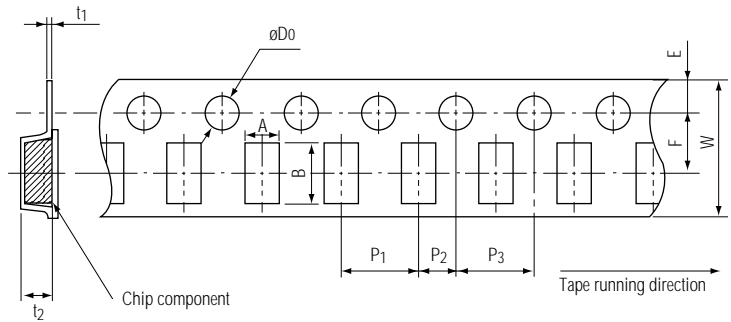
|          | a         | b         | c         |
|----------|-----------|-----------|-----------|
| Type RE  | 0.8 ~ 1.0 | 2.0 ~ 2.6 | 0.7 ~ 0.9 |
| Type □ D | 1.0 ~ 1.2 | 3.0 ~ 3.8 | 0.9 ~ 1.3 |
| Type □ C | 1.4 ~ 1.5 | 3.5 ~ 4.0 | 1.2 ~ 1.6 |
| Type □ A | 1.6 ~ 2.0 | 4.0 ~ 4.6 | 1.9 ~ 2.4 |
| Type FB  | 2.4 ~ 2.6 | 5.5 ~ 6.0 | 2.0 ~ 3.0 |

■ Embossed Carrier Tape Dimensions in mm (not to scale)  
Types RE, ND, FC, FD, FC, PC



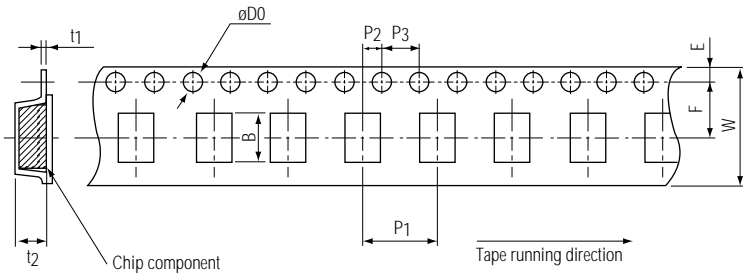
(W = 8mm)

Types NA, FA, SA, PA



(W = 8mm)

Type FB



(W = 12mm)

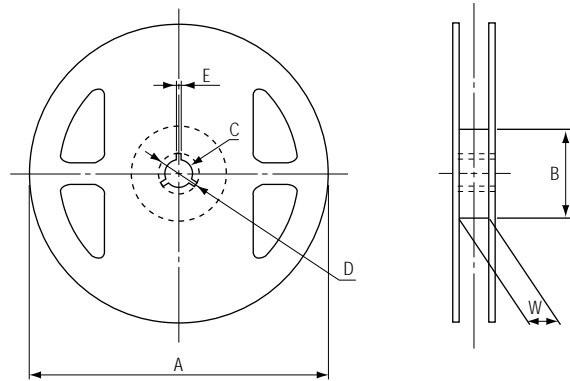
| Size        | Types          | Dimensions |      |    |     |      |                |                |                |                 |                 |                |                |
|-------------|----------------|------------|------|----|-----|------|----------------|----------------|----------------|-----------------|-----------------|----------------|----------------|
|             |                | A          | B    | W  | F   | E    | P <sub>1</sub> | P <sub>2</sub> | P <sub>3</sub> | øD <sub>0</sub> | øD <sub>1</sub> | t <sub>1</sub> | t <sub>2</sub> |
| 1608 (0603) | RE             | 1.0        | 1.8  | 8  | 3.5 | 1.75 | 4.0            | 2.0            | 4.0            | 1.5             | 0.6             | (0.27)         | 1.2            |
| 2012 (0805) | ND, FD         | 1.45       | 2.25 | 8  | 3.5 | 1.75 | 4.0            | 2.0            | 4.0            | 1.5             | 1.0             | (0.25)         | 1.55           |
| 2520 (1008) | NC, FC, PC     | 2.4        | 2.9  | 8  | 3.5 | 1.75 | 4.0            | 2.0            | 4.0            | 1.5             | 1.1             | (0.25)         | 1.85           |
| 3225 (1210) | NA, FA, SA, PA | 2.8        | 3.6  | 8  | 3.5 | 1.75 | 4.0            | 2.0            | 4.0            | 1.5             | —               | (0.25)         | 2.4            |
| 4532 (1812) | FB             | 3.6        | 4.9  | 12 | 5.5 | 1.75 | 8.0            | 2.0            | 4.0            | 1.5             | —               | (0.3)          | 3.5            |

■ Packaging Methods

**Standard Packing Quantity and Mass**

| Types          | Quantity  | Mass  |
|----------------|-----------|-------|
| RE, ND, FD     | 3000 pcs. | 90 g  |
| NC, FC, PC     | 2000 pcs. | 100 g |
| NA, FA, SA, PA | 2000 pcs. | 170 g |
| FB             | 500 pcs.  | 100 g |

**Reel Dimensions**



**Dimensions**

| Types RE, ND, FD, NC, FC, PC, NA, FA, SA, PA |         |     |    |     |    |
|--|---------|-----|----|-----|----|
| A  | B       | C   | D  | E   | W  |
| 178  | 60 min. | ø13 | 21 | 2.0 | 9  |
| Type FB                                      |         |     |    |     |    |
| A  | B       | C   | D  | E   | W  |
| 178  | 60 min. | ø13 | 21 | 2.0 | 13 |

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