

## RF Inductors / AIF\_H Series

### Features

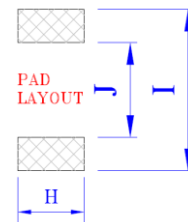
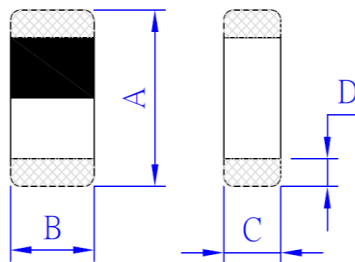
- Excellent Q factor and SRF characteristics.
- Small size of 1005 is suitable for small portable equipment.
- Supports operating frequency bands up to 6 GHz with nominal inductance values from 1.0 nH To 270 nH.

### Applications

- RF Resonance and Impedance Matching Circuit.
- RF and wireless communication.
- Information technology equipments, computers, telecommunications, radar detectors, automotive electronics, cellular phones, pagers, PDAs, keyless remote systems.
- Use in L-C filter configurations.

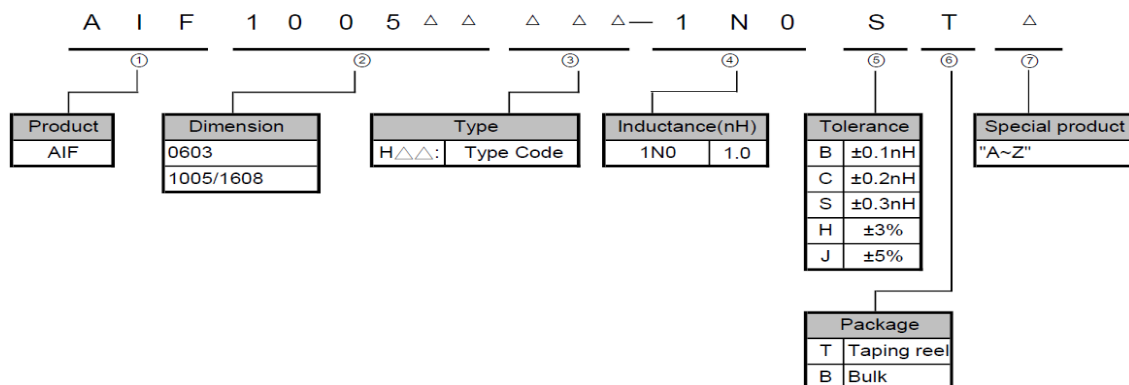


### ● Shape & Dimensions



| TYPE     | A (mm)     | B (mm)     | C (mm)     | D (mm)  | H (Ref.) | I (Ref.)  | J (Ref.) |
|----------|------------|------------|------------|---------|----------|-----------|----------|
| AIF0603H | 0.6 ± 0.03 | 0.3 ± 0.03 | 0.3 ± 0.03 | 0.1~0.2 | 0.3      | 0.75~1.05 | 0.3      |
| AIF1005H | 1.0 ± 0.10 | 0.5 ± 0.05 | 0.5 ± 0.05 | 0.1~0.3 | 0.5      | 1.2~1.4   | 0.4      |
| AIF1608H | 1.6 ± 0.15 | 0.8 ± 0.15 | 0.8 ± 0.15 | 0.2~0.6 | 0.6~0.8  | 1.8~2.0   | 0.7~0.8  |

### ■ PRODUCT IDENTIFICATION



## ◆AIF0603H Series Specification :

| Part Number    | Inductance<br>(nH) | Inductance<br>Tolerance | Q<br>Min. | Test Freq.<br>(MHz) | SRF<br>(MHz)Min. | DCR<br>(Ω) Max. | IDC<br>(mA) Max. |
|----------------|--------------------|-------------------------|-----------|---------------------|------------------|-----------------|------------------|
| AIF0603H-0N3□T | 0.3                | B , C , S               | -         | 500                 | 18000            | 0.08            | 850              |
| AIF0603H-0N6□T | 0.6                | B , C , S               | 14        | 500                 | 10000            | 0.07            | 850              |
| AIF0603H-0N7□T | 0.7                | B , C , S               | 14        | 500                 | 10000            | 0.08            | 800              |
| AIF0603H-0N8□T | 0.8                | B , C , S               | 14        | 500                 | 10000            | 0.08            | 800              |
| AIF0603H-1N0□T | 1.0                | B , C , S               | 14        | 500                 | 10000            | 0.10            | 750              |
| AIF0603H-1N1□T | 1.1                | B , C , S               | 14        | 500                 | 10000            | 0.10            | 750              |
| AIF0603H-1N2□T | 1.2                | B , C , S               | 14        | 500                 | 10000            | 0.10            | 750              |
| AIF0603H-1N3□T | 1.3                | B , C , S               | 14        | 500                 | 10000            | 0.15            | 650              |
| AIF0603H-1N4□T | 1.4                | B , C , S               | 14        | 500                 | 10000            | 0.15            | 650              |
| AIF0603H-1N5□T | 1.5                | B , C , S               | 14        | 500                 | 10000            | 0.15            | 600              |
| AIF0603H-1N6□T | 1.6                | B , C , S               | 14        | 500                 | 10000            | 0.15            | 600              |
| AIF0603H-1N7□T | 1.7                | B , C , S               | 14        | 500                 | 15000            | 0.15            | 600              |
| AIF0603H-1N8□T | 1.8                | B , C , S               | 14        | 500                 | 10000            | 0.15            | 600              |
| AIF0603H-1N9□T | 1.9                | B , C , S               | 14        | 500                 | 12500            | 0.15            | 600              |
| AIF0603H-2N0□T | 2.0                | B , C , S               | 14        | 500                 | 10000            | 0.15            | 600              |
| AIF0603H-2N2□T | 2.2                | B , C , S               | 14        | 500                 | 10000            | 0.15            | 600              |
| AIF0603H-2N3□T | 2.3                | B , C , S               | 14        | 500                 | 8800             | 0.20            | 500              |
| AIF0603H-2N4□T | 2.4                | B , C , S               | 14        | 500                 | 8300             | 0.20            | 500              |
| AIF0603H-2N5□T | 2.5                | B , C , S               | 14        | 500                 | 7700             | 0.20            | 500              |
| AIF0603H-2N6□T | 2.6                | B , C , S               | 14        | 500                 | 7700             | 0.20            | 500              |
| AIF0603H-2N7□T | 2.7                | B , C , S               | 14        | 500                 | 7700             | 0.20            | 500              |
| AIF0603H-3N0□T | 3.0                | B , C , S               | 14        | 500                 | 7200             | 0.25            | 400              |
| AIF0603H-3N2□T | 3.2                | B , C , S               | 14        | 500                 | 6700             | 0.25            | 450              |
| AIF0603H-3N3□T | 3.3                | B , C , S               | 14        | 500                 | 6700             | 0.25            | 400              |
| AIF0603H-3N6□T | 3.6                | B , C , S               | 14        | 500                 | 6400             | 0.30            | 400              |
| AIF0603H-3N7□T | 3.7                | B , C , S               | 14        | 500                 | 6400             | 0.30            | 400              |
| AIF0603H-3N9□T | 3.9                | B , C , S               | 14        | 500                 | 6000             | 0.30            | 400              |
| AIF0603H-4N0□T | 4.0                | B , C , S               | 14        | 500                 | 6000             | 0.40            | 350              |
| AIF0603H-4N2□T | 4.2                | B , C , S               | 14        | 500                 | 5100             | 0.40            | 350              |
| AIF0603H-4N3□T | 4.3                | B , C , S               | 14        | 500                 | 5100             | 0.40            | 350              |
| AIF0603H-4N7□T | 4.7                | B , C , S               | 14        | 500                 | 5300             | 0.40            | 350              |
| AIF0603H-5N1□T | 5.1                | B , C , S               | 14        | 500                 | 5000             | 0.40            | 350              |
| AIF0603H-5N6□T | 5.6                | B , C , S               | 14        | 500                 | 4600             | 0.40            | 350              |
| AIF0603H-6N2□T | 6.2                | J , K                   | 14        | 500                 | 4200             | 0.60            | 300              |
| AIF0603H-6N8□T | 6.8                | J , K                   | 14        | 500                 | 3900             | 0.60            | 300              |
| AIF0603H-7N5□T | 7.5                | J , K                   | 14        | 500                 | 3600             | 0.60            | 300              |
| AIF0603H-8N2□T | 8.2                | J , K                   | 14        | 500                 | 3400             | 0.70            | 250              |
| AIF0603H-9N1□T | 9.1                | J , K                   | 14        | 500                 | 3300             | 0.70            | 250              |
| AIF0603H-10N□T | 10                 | J , K                   | 14        | 500                 | 3200             | 0.70            | 250              |
| AIF0603H-12N□T | 12                 | J , K                   | 12        | 500                 | 2700             | 0.70            | 250              |
| AIF0603H-13N□T | 13                 | J , K                   | 12        | 500                 | 2700             | 0.80            | 250              |
| AIF0603H-15N□T | 15                 | J , K                   | 12        | 500                 | 2300             | 0.70            | 250              |
| AIF0603H-18N□T | 18                 | J , K                   | 12        | 500                 | 2100             | 0.80            | 200              |

|                |    |       |    |     |      |      |     |
|----------------|----|-------|----|-----|------|------|-----|
| AIF0603H-20N□T | 20 | J , K | 12 | 500 | 1900 | 2.30 | 150 |
| AIF0603H-22N□T | 22 | J , K | 12 | 500 | 1800 | 1.90 | 150 |
| AIF0603H-24N□T | 24 | J , K | 12 | 500 | 1800 | 2.30 | 140 |
| AIF0603H-27N□T | 27 | J , K | 12 | 500 | 1800 | 2.30 | 140 |

**NOTE :**

\* The operating temperature range is -55℃ to +125℃(Including self-temperature rise).

\* □ Tolerance B :  $\pm 0.1\text{nH}$  , C :  $\pm 0.2\text{nH}$  , S :  $\pm 0.3\text{nH}$  , J :  $\pm 5\%$  , K :  $\pm 10\%$

## ◆AIF1005H Series Specification :

| Part Number    | Inductance<br>(nH) | Inductance<br>Tolerance | Q<br>Min. | Test Freq.<br>(MHz) | SRF<br>(GHz)Min. | DCR<br>( $\Omega$ ) Max. | IDC<br>(mA) Max. |
|----------------|--------------------|-------------------------|-----------|---------------------|------------------|--------------------------|------------------|
| AIF1005H-1N0□T | 1.0                | S                       | 8         | 100                 | 8.0              | 0.10                     | 300              |
| AIF1005H-1N2□T | 1.2                | S                       | 8         | 100                 | 8.0              | 0.10                     | 300              |
| AIF1005H-1N5□T | 1.5                | S                       | 8         | 100                 | 8.0              | 0.10                     | 300              |
| AIF1005H-1N8□T | 1.8                | S                       | 8         | 100                 | 6.0              | 0.10                     | 300              |
| AIF1005H-2N0□T | 2.0                | S                       | 8         | 100                 | 6.0              | 0.12                     | 300              |
| AIF1005H-2N2□T | 2.2                | S                       | 8         | 100                 | 6.0              | 0.15                     | 300              |
| AIF1005H-2N4□T | 2.4                | S                       | 8         | 100                 | 6.0              | 0.16                     | 300              |
| AIF1005H-2N7□T | 2.7                | S                       | 8         | 100                 | 6.0              | 0.17                     | 300              |
| AIF1005H-3N0□T | 3.0                | S                       | 8         | 100                 | 6.0              | 0.18                     | 300              |
| AIF1005H-3N3□T | 3.3                | S                       | 8         | 100                 | 6.0              | 0.19                     | 300              |
| AIF1005H-3N6□T | 3.6                | S                       | 8         | 100                 | 6.0              | 0.19                     | 300              |
| AIF1005H-3N9□T | 3.9                | S                       | 8         | 100                 | 6.0              | 0.19                     | 300              |
| AIF1005H-4N3□T | 4.3                | S                       | 8         | 100                 | 4.0              | 0.21                     | 300              |
| AIF1005H-4N7□T | 4.7                | S                       | 8         | 100                 | 6.0              | 0.23                     | 300              |
| AIF1005H-5N1□T | 5.1                | S                       | 8         | 100                 | 6.0              | 0.24                     | 300              |
| AIF1005H-5N6□T | 5.6                | S                       | 8         | 100                 | 5.3              | 0.26                     | 300              |
| AIF1005H-6N2□T | 6.2                | S                       | 8         | 100                 | 4.3              | 0.27                     | 300              |
| AIF1005H-6N8□T | 6.8                | J                       | 8         | 100                 | 4.2              | 0.29                     | 300              |
| AIF1005H-7N5□T | 7.5                | J                       | 8         | 100                 | 4.2              | 0.31                     | 300              |
| AIF1005H-8N2□T | 8.2                | J                       | 8         | 100                 | 3.6              | 0.33                     | 300              |
| AIF1005H-9N1□T | 9.1                | J                       | 8         | 100                 | 3.4              | 0.34                     | 300              |
| AIF1005H-10N□T | 10                 | J                       | 8         | 100                 | 3.2              | 0.35                     | 300              |
| AIF1005H-12N□T | 12                 | J                       | 8         | 100                 | 2.8              | 0.41                     | 300              |
| AIF1005H-15N□T | 15                 | J                       | 8         | 100                 | 2.3              | 0.46                     | 300              |
| AIF1005H-18N□T | 18                 | J                       | 8         | 100                 | 2.1              | 0.51                     | 300              |
| AIF1005H-22N□T | 22                 | J                       | 8         | 100                 | 1.8              | 0.58                     | 300              |
| AIF1005H-27N□T | 27                 | J                       | 8         | 100                 | 1.6              | 0.67                     | 300              |
| AIF1005H-33N□T | 33                 | J                       | 8         | 100                 | 1.5              | 0.67                     | 200              |
| AIF1005H-39N□T | 39                 | J                       | 8         | 100                 | 1.2              | 1.06                     | 200              |
| AIF1005H-47N□T | 47                 | J                       | 8         | 100                 | 1.0              | 1.15                     | 200              |
| AIF1005H-56N□T | 56                 | J                       | 8         | 100                 | 0.8              | 1.20                     | 200              |
| AIF1005H-68N□T | 68                 | J                       | 8         | 100                 | 0.8              | 1.25                     | 180              |
| AIF1005H-82N□T | 82                 | J                       | 8         | 100                 | 0.6              | 1.60                     | 150              |
| AIF1005H-R10□T | 100                | J                       | 8         | 100                 | 0.6              | 1.60                     | 150              |
| AIF1005H-R12□T | 120                | J                       | 8         | 100                 | 0.6              | 1.60                     | 150              |
| AIF1005H-R15□T | 150                | J                       | 8         | 100                 | 0.5              | 2.99                     | 140              |
| AIF1005H-R18□T | 180                | J                       | 8         | 100                 | 0.5              | 3.38                     | 150              |
| AIF1005H-R22□T | 220                | J                       | 8         | 100                 | 0.5              | 3.77                     | 120              |
| AIF1005H-R27□T | 270                | J                       | 8         | 100                 | 0.4              | 4.90                     | 110              |

### NOTE :

\* The operating temperature range is -55℃ to +125℃(Including self-temperature rise).

\* □ Tolerance S :  $\pm 0.3\text{nH}$  , J :  $\pm 5\%$

## ◆AIF1608H Series Specification :

| Part Number    | Inductance<br>(nH) | Inductance<br>Tolerance | Q<br>Min. | Test Freq.<br>(MHz) | SRF<br>(GHz)Min. | DCR<br>( $\Omega$ ) Max. | IDC<br>(mA) Max. |
|----------------|--------------------|-------------------------|-----------|---------------------|------------------|--------------------------|------------------|
| AIF1608H-1N0□T | 1.0                | S                       | 8         | 100                 | 10.00            | 0.05                     | 300              |
| AIF1608H-1N2□T | 1.2                | S                       | 8         | 100                 | 10.00            | 0.05                     | 300              |
| AIF1608H-1N5□T | 1.5                | S                       | 8         | 100                 | 6.00             | 0.10                     | 300              |
| AIF1608H-1N8□T | 1.8                | S                       | 8         | 100                 | 6.00             | 0.10                     | 300              |
| AIF1608H-2N2□T | 2.2                | S                       | 8         | 100                 | 6.00             | 0.10                     | 300              |
| AIF1608H-2N7□T | 2.7                | S                       | 10        | 100                 | 6.00             | 0.10                     | 300              |
| AIF1608H-3N3□T | 3.3                | S                       | 10        | 100                 | 6.00             | 0.12                     | 300              |
| AIF1608H-3N9□T | 3.9                | S                       | 10        | 100                 | 6.00             | 0.14                     | 300              |
| AIF1608H-4N7□T | 4.7                | S                       | 10        | 100                 | 4.00             | 0.16                     | 300              |
| AIF1608H-5N6□T | 5.6                | S                       | 10        | 100                 | 4.00             | 0.18                     | 300              |
| AIF1608H-6N8□T | 6.8                | J                       | 10        | 100                 | 4.00             | 0.22                     | 300              |
| AIF1608H-8N2□T | 8.2                | J                       | 10        | 100                 | 3.50             | 0.24                     | 300              |
| AIF1608H-10N□T | 10                 | J                       | 12        | 100                 | 3.40             | 0.26                     | 300              |
| AIF1608H-12N□T | 12                 | J                       | 12        | 100                 | 2.60             | 0.28                     | 300              |
| AIF1608H-15N□T | 15                 | J                       | 12        | 100                 | 2.30             | 0.32                     | 300              |
| AIF1608H-18N□T | 18                 | J                       | 12        | 100                 | 2.00             | 0.35                     | 300              |
| AIF1608H-22N□T | 22                 | J                       | 12        | 100                 | 1.60             | 0.40                     | 300              |
| AIF1608H-27N□T | 27                 | J                       | 12        | 100                 | 1.40             | 0.45                     | 300              |
| AIF1608H-33N□T | 33                 | J                       | 12        | 100                 | 1.20             | 0.55                     | 300              |
| AIF1608H-39N□T | 39                 | J                       | 12        | 100                 | 1.10             | 0.60                     | 300              |
| AIF1608H-47N□T | 47                 | J                       | 12        | 100                 | 0.90             | 0.70                     | 300              |
| AIF1608H-56N□T | 56                 | J                       | 12        | 100                 | 0.90             | 0.75                     | 300              |
| AIF1608H-68N□T | 68                 | J                       | 12        | 100                 | 0.70             | 0.85                     | 300              |
| AIF1608H-82N□T | 82                 | J                       | 12        | 100                 | 0.60             | 0.95                     | 300              |
| AIF1608H-R10□T | 100                | J                       | 12        | 100                 | 0.60             | 1.00                     | 300              |
| AIF1608H-R12□T | 120                | J                       | 8         | 100                 | 0.50             | 1.20                     | 300              |
| AIF1608H-R15□T | 150                | J                       | 8         | 100                 | 0.50             | 1.20                     | 300              |
| AIF1608H-R18□T | 180                | J                       | 8         | 100                 | 0.40             | 1.30                     | 300              |
| AIF1608H-R22□T | 220                | J                       | 8         | 100                 | 0.40             | 1.50                     | 300              |
| AIF1608H-R27□T | 270                | J                       | 8         | 100                 | 0.40             | 1.90                     | 300              |
| AIF1608H-R33□T | 330                | J                       | 8         | 100                 | 0.35             | 2.10                     | 300              |
| AIF1608H-R39□T | 390                | J                       | 8         | 100                 | 0.35             | 2.30                     | 150              |
| AIF1608H-R47□T | 470                | J                       | 8         | 100                 | 0.30             | 2.60                     | 150              |

### NOTE :

\* The operating temperature range is -55℃ to +125℃(Including self-temperature rise).

\* □ Tolerance S :  $\pm 0.3\text{nH}$  , J :  $\pm 5\%$