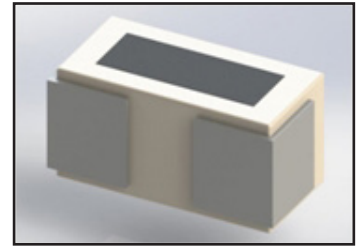


### FEATURES

- EIA 01005 & 0201 SIZES
- HIGH Q AND HIGH SRF CHARACTERISTICS
- FOR RF -WIRELESS & GNSS-GPS APPLICATIONS
- HIGH RELIABLE MONOLITHIC CONSTRUCTION
- REFLOW SOLDERING APPLICABLE
- PACKAGE FOR AUTOMATIC PICK-PLACE
- RoHS & REACH COMPLIANT

**NML-HQ** → **NML-SQ**  
(High Q) (Ultra High Q)



### SPECIFICATIONS

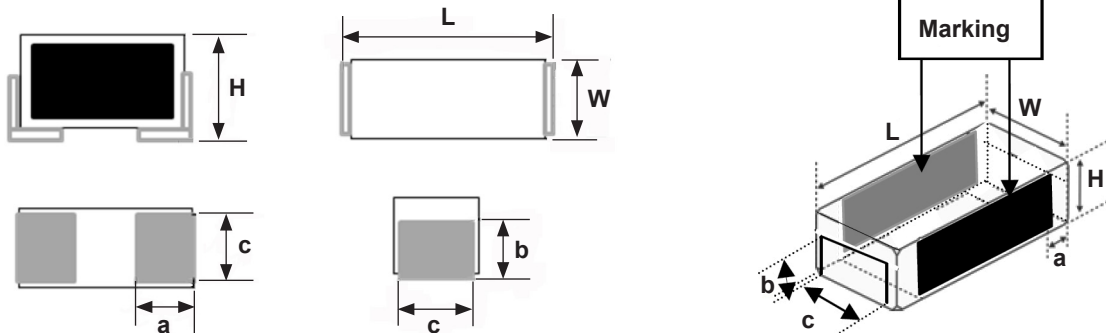
| Series   | Case size | Inductance Range | Tolerance                          | Temperature Range |
|----------|-----------|------------------|------------------------------------|-------------------|
| NML-SQ01 | 01005     | 0.2 ~ 4.2nH      | ±0.1nH (B), ±0.2nH (C), ±0.3nH (D) | -55°C ~ +125°C    |
|          |           | 4.3 ~ 56nH       | ±3% (H), ±5% (J)                   |                   |
| NML-SQ02 | 0201      | 0.6 ~ 4.2nH      | ±0.1nH (B), ±0.2nH (C), ±0.3nH (D) | 55°C ~ +125°C     |
|          |           | 6.8nH ~ 150nH    | ±3% (H), ±5% (J)                   |                   |

See Specifications Tables for Q Factor, Self Resonant Frequency, DC Resistance and DC Current Ratings

Note: Extended values, tolerances, and enhanced versions are available please contact NIC for more details.

### DIMENSIONS (mm)

| Case Size | L         | W         | H         | a         | b         | c         |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 01005     | 0.40±0.02 | 0.20±0.02 | 0.30±0.02 | 0.14±0.03 | 0.14±0.03 | 0.17±0.03 |
| 0201      | 0.60±0.03 | 0.30±0.03 | 0.40±0.02 | 0.15±0.03 | 0.20±0.03 | 0.25±0.03 |



Marking for visual orientation

### PART NUMBER SYSTEM

**NML-SQ 02 B 2N2 TR 600 F**

- Series: NML-SQ
- Case Size Code: 02 = 01005, 02 = 0201
- Tolerance Code: B = ±0.1nH, C = ±0.2nH, D = ±0.3nH, H = ±3%, J = ±5%
- Inductance Value in nH ("N" denotes decimal point): 2N2
- Packaging: TR = Tape & Reel
- Current Rating in mA: 600
- RoHS compliant: F

## NML-SQ SERIES 01005 CASE SIZE STANDARD VALUES & SPECIFICATIONS

| NIC<br>P/N          | 'L'<br>Inductance<br>(nH) | Tol.    | 'Q'<br>Factor<br>(min.) | L & Q<br>Test<br>Frequency<br>(MHz) | Typical Q (MHz) |     |      |      |      | SRF<br>MHz<br>(min.) | DC<br>Resistance<br>(ohms) Max. | Rated<br>DC Current<br>(mA) Max. |
|---------------------|---------------------------|---------|-------------------------|-------------------------------------|-----------------|-----|------|------|------|----------------------|---------------------------------|----------------------------------|
|                     |                           |         |                         |                                     | 500             | 800 | 1800 | 2000 | 2400 |                      |                                 |                                  |
| NML-SQ01_0N2TR1000F | 0.2                       | B, C, D | -                       | 500                                 | -               | -   | -    | -    | -    | 17000                | 0.010                           | 1000                             |
| NML-SQ01_0N3TR1000F | 0.3                       | B, C, D | -                       | 500                                 | -               | -   | -    | -    | -    | 17000                | 0.015                           | 1000                             |
| NML-SQ01_0N4TR1000F | 0.4                       | B, C, D | -                       | 500                                 | -               | -   | -    | -    | -    | 17000                | 0.03                            | 1000                             |
| NML-SQ01_0N5TR1000F | 0.5                       | B, C, D | -                       | 500                                 | -               | -   | -    | -    | -    | 17000                | 0.04                            | 1000                             |
| NML-SQ01_0N6TR950F  | 0.6                       | B, C, D | 14                      | 500                                 | 28              | 31  | 44   | 48   | 55   | 17000                | 0.05                            | 950                              |
| NML-SQ01_0N7TR900F  | 0.7                       | B, C, D | 14                      | 500                                 | 25              | 29  | 41   | 44   | 51   | 15500                | 0.05                            | 900                              |
| NML-SQ01_0N8TR900F  | 0.8                       | B, C, D | 14                      | 500                                 | 23              | 27  | 39   | 43   | 48   | 15500                | 0.05                            | 900                              |
| NML-SQ01_0N9TR900F  | 0.9                       | B, C, D | 14                      | 500                                 | 21              | 25  | 37   | 40   | 45   | 14600                | 0.05                            | 900                              |
| NML-SQ01_1N0TR900F  | 1.0                       | B, C, D | 14                      | 500                                 | 20              | 24  | 36   | 39   | 44   | 13200                | 0.05                            | 900                              |
| NML-SQ01_1N1TR850F  | 1.1                       | B, C, D | 14                      | 500                                 | 22              | 26  | 40   | 42   | 48   | 13000                | 0.07                            | 850                              |
| NML-SQ01_1N2TR800F  | 1.2                       | B, C, D | 14                      | 500                                 | 20              | 25  | 37   | 40   | 46   | 13000                | 0.07                            | 800                              |
| NML-SQ01_1N3TR700F  | 1.3                       | B, C, D | 14                      | 500                                 | 21              | 26  | 39   | 42   | 48   | 12700                | 0.08                            | 700                              |
| NML-SQ01_1N4TR700F  | 1.4                       | B, C, D | 14                      | 500                                 | 21              | 25  | 38   | 42   | 47   | 12700                | 0.08                            | 700                              |
| NML-SQ01_1N5TR700F  | 1.5                       | B, C, D | 14                      | 500                                 | 20              | 25  | 37   | 40   | 46   | 12700                | 0.08                            | 700                              |
| NML-SQ01_1N6TR700F  | 1.6                       | B, C, D | 14                      | 500                                 | 19              | 23  | 35   | 37   | 42   | 11000                | 0.08                            | 700                              |
| NML-SQ01_1N7TR700F  | 1.7                       | B, C, D | 14                      | 500                                 | 20              | 24  | 37   | 39   | 44   | 11000                | 0.08                            | 700                              |
| NML-SQ01_1N8TR700F  | 1.8                       | B, C, D | 14                      | 500                                 | 22              | 28  | 43   | 46   | 50   | 10200                | 0.08                            | 700                              |
| NML-SQ01_1N9TR700F  | 1.9                       | B, C, D | 14                      | 500                                 | 24              | 30  | 46   | 50   | 55   | 10200                | 0.08                            | 700                              |
| NML-SQ01_2N0TR700F  | 2.0                       | B, C, D | 14                      | 500                                 | 22              | 27  | 41   | 44   | 48   | 10100                | 0.10                            | 700                              |
| NML-SQ01_2N1TR650F  | 2.1                       | B, C, D | 14                      | 500                                 | 24              | 29  | 45   | 48   | 54   | 10100                | 0.10                            | 650                              |
| NML-SQ01_2N2TR500F  | 2.2                       | B, C, D | 14                      | 500                                 | 22              | 27  | 42   | 45   | 49   | 9800                 | 0.20                            | 500                              |
| NML-SQ01_2N3TR450F  | 2.3                       | B, C, D | 14                      | 500                                 | 24              | 30  | 46   | 50   | 55   | 9800                 | 0.20                            | 450                              |
| NML-SQ01_2N4TR450F  | 2.4                       | B, C, D | 14                      | 500                                 | 20              | 25  | 39   | 42   | 46   | 9500                 | 0.20                            | 450                              |
| NML-SQ01_2N5TR450F  | 2.5                       | B, C, D | 14                      | 500                                 | 19              | 24  | 39   | 42   | 46   | 9500                 | 0.20                            | 450                              |
| NML-SQ01_2N6TR450F  | 2.6                       | B, C, D | 14                      | 500                                 | 19              | 24  | 39   | 42   | 46   | 9500                 | 0.20                            | 450                              |
| NML-SQ01_2N7TR450F  | 2.7                       | B, C, D | 14                      | 500                                 | 20              | 25  | 39   | 41   | 45   | 8800                 | 0.20                            | 450                              |
| NML-SQ01_2N8TR450F  | 2.8                       | B, C, D | 14                      | 500                                 | 19              | 25  | 40   | 44   | 47   | 8800                 | 0.20                            | 450                              |
| NML-SQ01_2N9TR450F  | 2.9                       | B, C, D | 14                      | 500                                 | 19              | 25  | 40   | 44   | 47   | 8800                 | 0.20                            | 450                              |
| NML-SQ01_3N0TR450F  | 3.0                       | B, C, D | 14                      | 500                                 | 20              | 26  | 40   | 43   | 46   | 8500                 | 0.20                            | 450                              |
| NML-SQ01_3N1TR400F  | 3.1                       | B, C, D | 14                      | 500                                 | 20              | 25  | 41   | 43   | 45   | 8500                 | 0.25                            | 400                              |
| NML-SQ01_3N2TR400F  | 3.2                       | B, C, D | 14                      | 500                                 | 20              | 26  | 41   | 44   | 47   | 8500                 | 0.25                            | 400                              |
| NML-SQ01_3N3TR400F  | 3.3                       | B, C, D | 14                      | 500                                 | 20              | 26  | 42   | 44   | 48   | 8200                 | 0.25                            | 400                              |
| NML-SQ01_3N4TR400F  | 3.4                       | B, C, D | 14                      | 500                                 | 20              | 26  | 42   | 44   | 48   | 8200                 | 0.30                            | 400                              |
| NML-SQ01_3N5TR350F  | 3.5                       | B, C, D | 14                      | 500                                 | 20              | 26  | 42   | 44   | 48   | 8200                 | 0.30                            | 350                              |
| NML-SQ01_3N6TR350F  | 3.6                       | B, C, D | 14                      | 500                                 | 20              | 27  | 42   | 44   | 48   | 8200                 | 0.30                            | 350                              |
| NML-SQ01_3N7TR350F  | 3.7                       | B, C, D | 14                      | 500                                 | 19              | 25  | 41   | 43   | 49   | 8200                 | 0.35                            | 350                              |
| NML-SQ01_3N8TR350F  | 3.8                       | B, C, D | 14                      | 500                                 | 18              | 23  | 37   | 39   | 43   | 8200                 | 0.35                            | 350                              |
| NML-SQ01_3N9TR350F  | 3.9                       | B, C, D | 14                      | 500                                 | 19              | 24  | 37   | 39   | 42   | 7700                 | 0.35                            | 350                              |
| NML-SQ01_4N0TR350F  | 4.0                       | B, C, D | 14                      | 500                                 | 18              | 24  | 38   | 41   | 44   | 6900                 | 0.35                            | 350                              |
| NML-SQ01_4N1TR350F  | 4.1                       | B, C, D | 14                      | 500                                 | 19              | 24  | 38   | 41   | 44   | 6900                 | 0.35                            | 350                              |
| NML-SQ01_4N2TR350F  | 4.2                       | B, C, D | 14                      | 500                                 | 18              | 23  | 37   | 39   | 45   | 6900                 | 0.35                            | 350                              |
| NML-SQ01_4N3TR350F  | 4.3                       | H, J    | 14                      | 500                                 | 19              | 24  | 37   | 39   | 42   | 6900                 | 0.35                            | 350                              |
| NML-SQ01_4N7TR350F  | 4.7                       | H, J    | 14                      | 500                                 | 18              | 23  | 36   | 38   | 41   | 6700                 | 0.35                            | 350                              |
| NML-SQ01_5N1TR350F  | 5.1                       | H, J    | 14                      | 500                                 | 18              | 24  | 36   | 38   | 41   | 6600                 | 0.35                            | 350                              |
| NML-SQ01_5N6TR300F  | 5.6                       | H, J    | 14                      | 500                                 | 18              | 24  | 35   | 37   | 40   | 6100                 | 0.40                            | 300                              |
| NML-SQ01_6N2TR300F  | 6.2                       | H, J    | 14                      | 500                                 | 17              | 22  | 32   | 34   | 37   | 6000                 | 0.40                            | 300                              |
| NML-SQ01_6N8TR300F  | 6.8                       | H, J    | 14                      | 500                                 | 17              | 22  | 33   | 35   | 37   | 5700                 | 0.40                            | 300                              |
| NML-SQ01_7N5TR300F  | 7.5                       | H, J    | 14                      | 500                                 | 17              | 23  | 34   | 36   | 38   | 5600                 | 0.50                            | 300                              |
| NML-SQ01_8N2TR300F  | 8.2                       | H, J    | 14                      | 500                                 | 17              | 21  | 30   | 31   | 33   | 5100                 | 0.50                            | 300                              |
| NML-SQ01_9N1TR300F  | 9.1                       | H, J    | 14                      | 500                                 | 17              | 22  | 31   | 32   | 33   | 4900                 | 0.50                            | 300                              |
| NML-SQ01_10NTR250F  | 10                        | H, J    | 14                      | 500                                 | 17              | 22  | 32   | 33   | 34   | 4900                 | 0.60                            | 250                              |

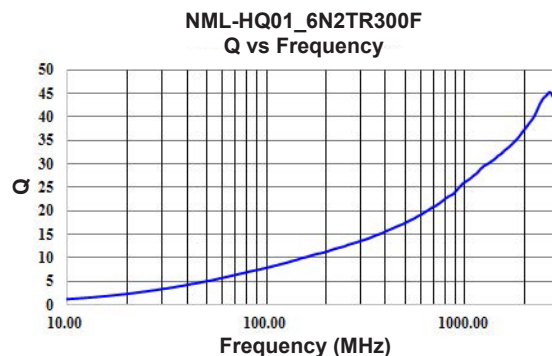
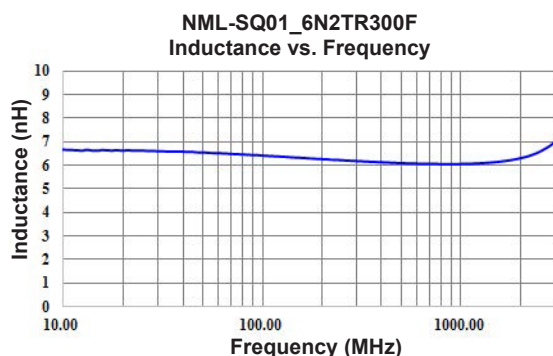
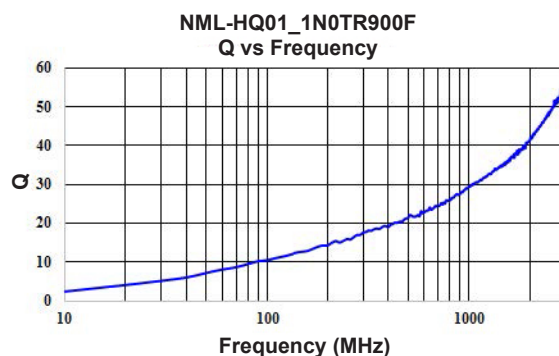
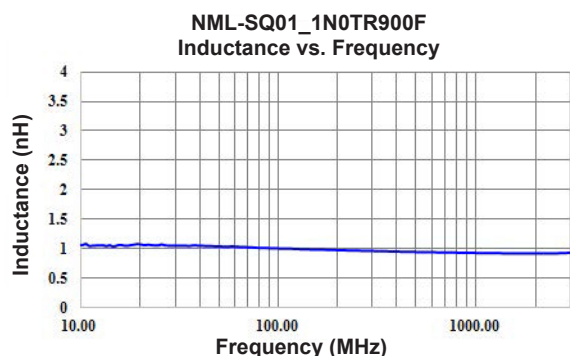
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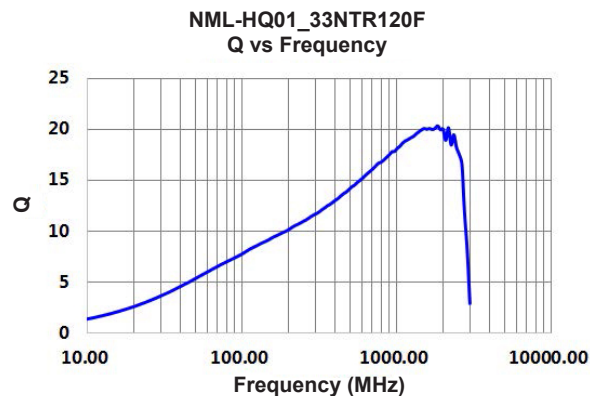
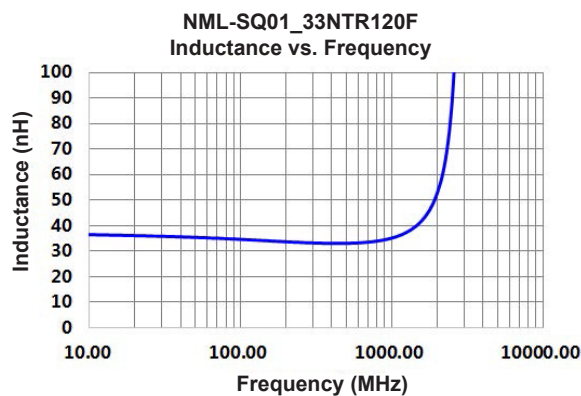
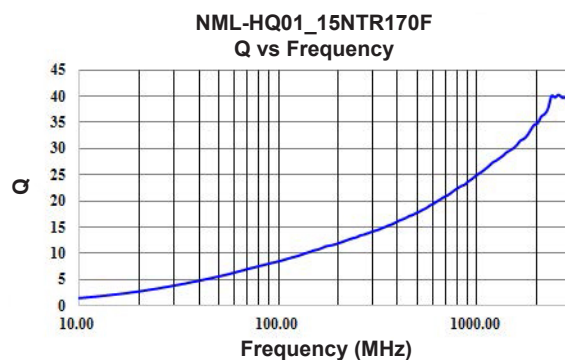
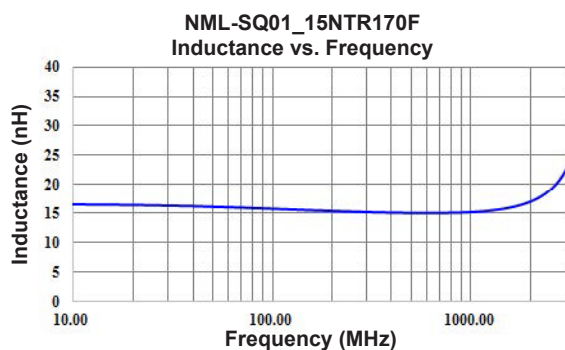
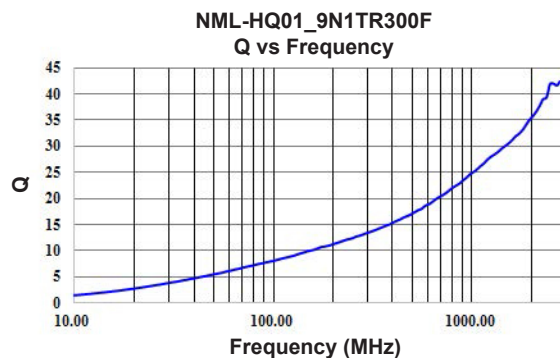
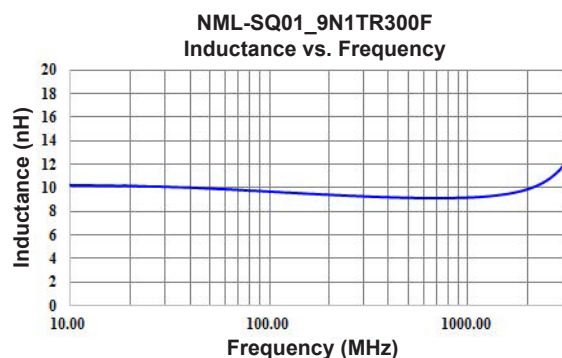


### NML-SQ SERIES 01005 CASE SIZE STANDARD VALUES & SPECIFICATIONS

| NIC<br>P/N         | 'L'<br>Inductance<br>(nH) | Tol. | 'Q'<br>Factor<br>(min.) | L & Q<br>Test<br>Frequency<br>(MHz) | Typical Q (MHz) |     |      |      |      | SRF<br>MHz<br>(min.) | DC<br>Resistance<br>(ohms) Max. | Rated<br>DC Current<br>(mA) Max. |
|--------------------|---------------------------|------|-------------------------|-------------------------------------|-----------------|-----|------|------|------|----------------------|---------------------------------|----------------------------------|
|                    |                           |      |                         |                                     | 500             | 800 | 1800 | 2000 | 2400 |                      |                                 |                                  |
| NML-SQ01_11NTR250F | 11                        | H, J | 14                      | 500                                 | 15              | 20  | 30   | 31   | 33   | 4000                 | 0.80                            | 250                              |
| NML-SQ01_12NTR230F | 12                        | H, J | 14                      | 500                                 | 17              | 21  | 30   | 31   | 32   | 4000                 | 0.82                            | 230                              |
| NML-SQ01_13NTR210F | 13                        | H, J | 14                      | 500                                 | 15              | 20  | 30   | 31   | 32   | 4000                 | 0.99                            | 210                              |
| NML-SQ01_15NTR170F | 15                        | H, J | 12                      | 500                                 | 17              | 21  | 29   | 30   | 30   | 4000                 | 1.53                            | 170                              |
| NML-SQ01_16NTR170F | 16                        | H, J | 12                      | 500                                 | 16              | 20  | 29   | 30   | 29   | 4000                 | 1.53                            | 170                              |
| NML-SQ01_18NTR160F | 18                        | H, J | 12                      | 500                                 | 17              | 21  | 29   | 29   | 29   | 3700                 | 1.63                            | 160                              |
| NML-SQ01_20NTR140F | 20                        | H, J | 12                      | 500                                 | 16              | 19  | 25   | 24   | 23   | 3000                 | 2.26                            | 140                              |
| NML-SQ01_22NTR140F | 22                        | H, J | 12                      | 500                                 | 16              | 19  | 25   | 24   | 22   | 3000                 | 2.26                            | 140                              |
| NML-SQ01_24NTR120F | 24                        | H, J | 12                      | 500                                 | 15              | 18  | 23   | 21   | 20   | 2900                 | 2.60                            | 120                              |
| NML-SQ01_27NTR120F | 27                        | H, J | 12                      | 500                                 | 15              | 18  | 22   | 20   | 17   | 2900                 | 2.60                            | 120                              |
| NML-SQ01_30NTR120F | 30                        | H, J | 10                      | 500                                 | 13              | 16  | 18   | 19   | 20   | 2600                 | 3.20                            | 120                              |
| NML-SQ01_33NTR120F | 33                        | H, J | 10                      | 300                                 | 13              | 16  | 20   | 19   | 20   | 2600                 | 3.20                            | 120                              |
| NML-SQ01_36NTR110F | 36                        | H, J | 10                      | 300                                 | 13              | 15  | 16   | 15   | 12   | 2400                 | 3.60                            | 110                              |
| NML-SQ01_39NTR120F | 39                        | H, J | 10                      | 300                                 | 13              | 15  | 16   | 15   | 10   | 2400                 | 3.60                            | 120                              |
| NML-SQ01_43NTR100F | 43                        | H, J | 8                       | 300                                 | 12              | 14  | 13   | 12   | 7    | 2100                 | 4.00                            | 100                              |
| NML-SQ01_47NTR100F | 47                        | H, J | 8                       | 300                                 | 12              | 14  | 13   | 11   | 6    | 2100                 | 4.00                            | 100                              |
| NML-SQ01_51NTR100F | 51                        | H, J | 8                       | 300                                 | 12              | 14  | 11   | 9    | 4    | 1900                 | 4.20                            | 100                              |
| NML-SQ01_56NTR100F | 56                        | H, J | 8                       | 300                                 | 12              | 14  | 10   | 8    | -    | 1900                 | 4.20                            | 100                              |

### NML-SQ01 TYPICAL PERFORMANCE CURVES





## NML-SQ SERIES 0201 CASE SIZE STANDARD VALUES & SPECIFICATIONS

| NIC<br>P/N          | 'L'<br>Inductance<br>(nH) | Tol.    | 'Q'<br>Factor<br>(min.) | L & Q<br>Test<br>Frequency<br>(MHz) | Typical Q (MHz) |     |      |      |      | SRF<br>MHz<br>(min.) | DC<br>Resistance<br>(ohms) Max. | Rated<br>DC Current<br>(mA) Max. |
|---------------------|---------------------------|---------|-------------------------|-------------------------------------|-----------------|-----|------|------|------|----------------------|---------------------------------|----------------------------------|
|                     |                           |         |                         |                                     | 500             | 800 | 1800 | 2000 | 2400 |                      |                                 |                                  |
| NML-SQ02_0N6TR1100F | 0.6                       | B, C, D | 20                      | 500                                 | -               | -   | -    | -    | -    | 20000                | 0.04                            | 1100                             |
| NML-SQ02_0N7TR1100F | 0.7                       | B, C, D | 20                      | 500                                 | -               | -   | -    | -    | -    | 20000                | 0.04                            | 1100                             |
| NML-SQ02_0N8TR1100F | 0.8                       | B, C, D | 20                      | 500                                 | -               | -   | -    | -    | -    | 18000                | 0.04                            | 1100                             |
| NML-SQ02_0N9TR1100F | 0.9                       | B, C, D | 20                      | 500                                 | -               | -   | -    | -    | -    | 18000                | 0.04                            | 1100                             |
| NML-SQ02_1N0TR1100F | 1.0                       | B, C, D | 20                      | 500                                 | 47              | 60  | 92   | 99   | 110  | 16000                | 0.04                            | 1100                             |
| NML-SQ02_1N1TR1100F | 1.1                       | B, C, D | 20                      | 500                                 | 46              | 58  | 90   | 95   | 104  | 14000                | 0.04                            | 1100                             |
| NML-SQ02_1N2TR1100F | 1.2                       | B, C, D | 20                      | 500                                 | 45              | 56  | 88   | 92   | 100  | 13000                | 0.04                            | 1100                             |
| NML-SQ02_1N3TR1100F | 1.3                       | B, C, D | 20                      | 500                                 | 45              | 56  | 88   | 93   | 102  | 13000                | 0.04                            | 1100                             |
| NML-SQ02_1N4TR1100F | 1.4                       | B, C, D | 20                      | 500                                 | 42              | 55  | 89   | 95   | 103  | 12000                | 0.04                            | 1100                             |
| NML-SQ02_1N5TR1000F | 1.5                       | B, C, D | 20                      | 500                                 | 42              | 54  | 86   | 90   | 100  | 12000                | 0.05                            | 1000                             |
| NML-SQ02_1N6TR1000F | 1.6                       | B, C, D | 20                      | 500                                 | 41              | 52  | 80   | 83   | 92   | 10000                | 0.05                            | 1000                             |
| NML-SQ02_1N7TR800F  | 1.7                       | B, C, D | 20                      | 500                                 | 39              | 49  | 75   | 79   | 86   | 10000                | 0.07                            | 800                              |
| NML-SQ02_1N8TR800F  | 1.8                       | B, C, D | 20                      | 500                                 | 38              | 45  | 72   | 75   | 81   | 10000                | 0.08                            | 800                              |
| NML-SQ02_1N9TR600F  | 1.9                       | B, C, D | 20                      | 500                                 | 36              | 46  | 71   | 74   | 81   | 10000                | 0.12                            | 600                              |
| NML-SQ02_2N0TR600F  | 2.0                       | B, C, D | 20                      | 500                                 | 36              | 45  | 68   | 70   | 77   | 9000                 | 0.12                            | 600                              |
| NML-SQ02_2N1TR600F  | 2.1                       | B, C, D | 20                      | 500                                 | 36              | 45  | 67   | 71   | 76   | 9000                 | 0.12                            | 600                              |
| NML-SQ02_2N2TR600F  | 2.2                       | B, C, D | 20                      | 500                                 | 36              | 45  | 67   | 69   | 76   | 9000                 | 0.12                            | 600                              |
| NML-SQ02_2N3TR600F  | 2.3                       | B, C, D | 20                      | 500                                 | 37              | 46  | 68   | 71   | 76   | 9000                 | 0.12                            | 600                              |
| NML-SQ02_2N4TR600F  | 2.4                       | B, C, D | 20                      | 500                                 | 39              | 48  | 72   | 75   | 82   | 9000                 | 0.12                            | 600                              |
| NML-SQ02_2N5TR600F  | 2.5                       | B, C, D | 20                      | 500                                 | 38              | 47  | 70   | 73   | 80   | 9000                 | 0.12                            | 600                              |
| NML-SQ02_2N6TR600F  | 2.6                       | B, C, D | 20                      | 500                                 | 35              | 43  | 64   | 66   | 72   | 9000                 | 0.12                            | 600                              |
| NML-SQ02_2N7TR600F  | 2.7                       | B, C, D | 20                      | 500                                 | 36              | 44  | 65   | 68   | 73   | 9000                 | 0.12                            | 600                              |
| NML-SQ02_2N8TR600F  | 2.8                       | B, C, D | 20                      | 500                                 | 34              | 43  | 63   | 65   | 70   | 8000                 | 0.12                            | 600                              |
| NML-SQ02_2N9TR600F  | 2.9                       | B, C, D | 20                      | 500                                 | 36              | 45  | 65   | 66   | 72   | 8000                 | 0.12                            | 600                              |
| NML-SQ02_3N0TR600F  | 3.0                       | B, C, D | 20                      | 500                                 | 36              | 44  | 65   | 66   | 72   | 8000                 | 0.12                            | 600                              |
| NML-SQ02_3N1TR500F  | 3.1                       | B, C, D | 20                      | 500                                 | 34              | 42  | 62   | 64   | 69   | 7500                 | 0.17                            | 500                              |
| NML-SQ02_3N2TR500F  | 3.2                       | B, C, D | 20                      | 500                                 | 33              | 42  | 63   | 66   | 72   | 7000                 | 0.17                            | 500                              |
| NML-SQ02_3N3TR500F  | 3.3                       | B, C, D | 20                      | 500                                 | 34              | 45  | 73   | 77   | 89   | 7000                 | 0.17                            | 500                              |
| NML-SQ02_3N4TR500F  | 3.4                       | B, C, D | 20                      | 500                                 | 33              | 41  | 59   | 61   | 66   | 7000                 | 0.17                            | 500                              |
| NML-SQ02_3N5TR500F  | 3.5                       | B, C, D | 20                      | 500                                 | 33              | 41  | 59   | 61   | 65   | 7000                 | 0.17                            | 500                              |
| NML-SQ02_3N6TR500F  | 3.6                       | B, C, D | 20                      | 500                                 | 32              | 42  | 59   | 61   | 65   | 7000                 | 0.17                            | 500                              |
| NML-SQ02_3N7TR500F  | 3.7                       | B, C, D | 20                      | 500                                 | 32              | 40  | 59   | 60   | 65   | 7000                 | 0.17                            | 500                              |
| NML-SQ02_3N8TR500F  | 3.8                       | B, C, D | 20                      | 500                                 | 31              | 38  | 60   | 62   | 70   | 7000                 | 0.17                            | 500                              |
| NML-SQ02_3N9TR500F  | 3.9                       | B, C, D | 20                      | 500                                 | 30              | 39  | 61   | 64   | 72   | 7000                 | 0.17                            | 500                              |
| NML-SQ02_4N0TR500F  | 4.0                       | B, C, D | 20                      | 500                                 | 33              | 41  | 59   | 61   | 66   | 7000                 | 0.17                            | 500                              |
| NML-SQ02_4N1TR500F  | 4.1                       | B, C, D | 20                      | 500                                 | 30              | 38  | 56   | 58   | 62   | 7000                 | 0.17                            | 500                              |
| NML-SQ02_4N2TR500F  | 4.2                       | B, C, D | 20                      | 500                                 | 31              | 39  | 57   | 59   | 63   | 7000                 | 0.17                            | 500                              |
| NML-SQ02_4N3TR500F  | 4.3                       | H, J    | 20                      | 500                                 | 32              | 40  | 58   | 59   | 64   | 7000                 | 0.17                            | 500                              |
| NML-SQ02_4N7TR400F  | 4.7                       | H, J    | 20                      | 500                                 | 31              | 39  | 58   | 58   | 63   | 7000                 | 0.25                            | 400                              |
| NML-SQ02_5N1TR400F  | 5.1                       | H, J    | 20                      | 500                                 | 32              | 39  | 55   | 56   | 59   | 5500                 | 0.25                            | 400                              |
| NML-SQ02_5N6TR400F  | 5.6                       | H, J    | 20                      | 500                                 | 32              | 40  | 56   | 57   | 57   | 5500                 | 0.25                            | 400                              |
| NML-SQ02_6N2TR400F  | 6.2                       | H, J    | 20                      | 500                                 | 29              | 36  | 51   | 52   | 55   | 5500                 | 0.25                            | 400                              |
| NML-SQ02_6N8TR400F  | 6.8                       | H, J    | 20                      | 500                                 | 29              | 36  | 50   | 51   | 53   | 5500                 | 0.30                            | 400                              |
| NML-SQ02_7N5TR400F  | 7.5                       | H, J    | 20                      | 500                                 | 28              | 36  | 50   | 52   | 53   | 4500                 | 0.30                            | 400                              |
| NML-SQ02_8N2TR300F  | 8.2                       | H, J    | 20                      | 500                                 | 29              | 37  | 51   | 51   | 52   | 4500                 | 0.40                            | 300                              |
| NML-SQ02_9N1TR300F  | 9.1                       | H, J    | 20                      | 500                                 | 27              | 35  | 48   | 50   | 51   | 4500                 | 0.40                            | 300                              |
| NML-SQ02_10NTR300F  | 10                        | H, J    | 20                      | 500                                 | 28              | 36  | 48   | 49   | 47   | 4500                 | 0.40                            | 300                              |
| NML-SQ02_11NTR300F  | 11                        | H, J    | 20                      | 500                                 | 28              | 36  | 48   | 49   | 47   | 4000                 | 0.50                            | 300                              |
| NML-SQ02_12NTR300F  | 12                        | H, J    | 20                      | 500                                 | 29              | 36  | 48   | 49   | 48   | 4000                 | 0.50                            | 300                              |
| NML-SQ02_13NTR300F  | 13                        | H, J    | 20                      | 500                                 | 28              | 35  | 45   | 46   | 43   | 4000                 | 0.50                            | 300                              |
| NML-SQ02_15NTR300F  | 15                        | H, J    | 20                      | 500                                 | 27              | 34  | 41   | 40   | 37   | 3500                 | 0.70                            | 300                              |

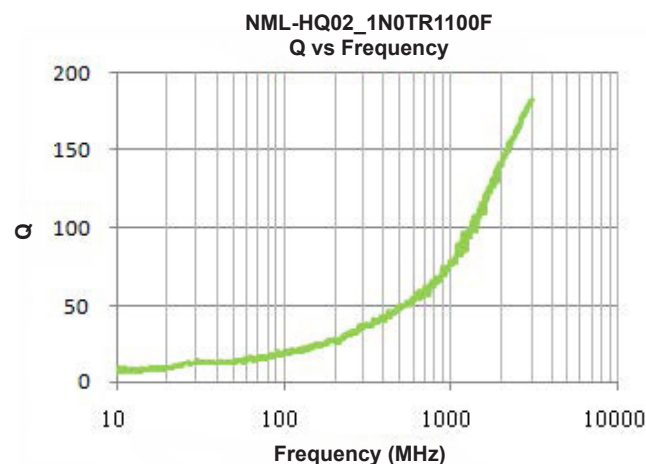
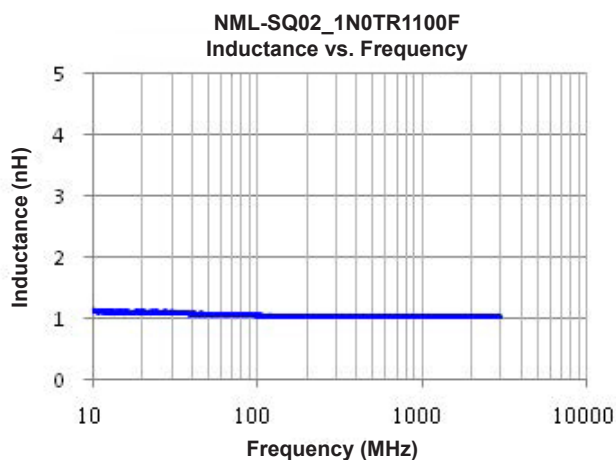
TABLE CONTINUES ON NEXT PAGE



### NML-SQ SERIES 0201 CASE SIZE STANDARD VALUES & SPECIFICATIONS

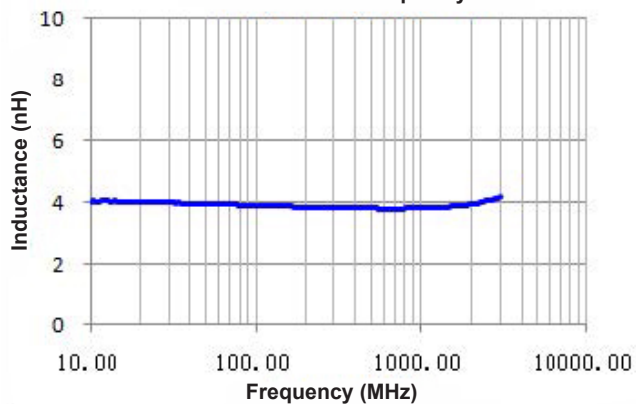
| NIC<br>P/N         | 'L'<br>Inductance<br>(nH) | Tol. | 'Q'<br>Factor<br>(min.) | L & Q<br>Test<br>Frequency<br>(MHz) | Typical Q (MHz) |     |      |      |      | SRF<br>MHz<br>(min.) | DC<br>Resistance<br>(ohms) Max. | Rated<br>DC Current<br>(mA) Max. |
|--------------------|---------------------------|------|-------------------------|-------------------------------------|-----------------|-----|------|------|------|----------------------|---------------------------------|----------------------------------|
|                    |                           |      |                         |                                     | 500             | 800 | 1800 | 2000 | 2400 |                      |                                 |                                  |
| NML-SQ02_16NTR250F | 16                        | H, J | 20                      | 500                                 | 27              | 34  | 41   | 40   | 36   | 3500                 | 0.80                            | 250                              |
| NML-SQ02_18NTR250F | 18                        | H, J | 20                      | 500                                 | 28              | 35  | 41   | 39   | 35   | 3500                 | 0.80                            | 250                              |
| NML-SQ02_20NTR250F | 20                        | H, J | 20                      | 500                                 | 26              | 33  | 38   | 37   | 30   | 3000                 | 0.80                            | 250                              |
| NML-SQ02_22NTR250F | 22                        | H, J | 20                      | 500                                 | 25              | 31  | 35   | 33   | 29   | 3000                 | 0.82                            | 250                              |
| NML-SQ02_24NTR170F | 24                        | H, J | 15                      | 500                                 | 27              | 32  | 32   | 29   | 22   | 2000                 | 1.60                            | 170                              |
| NML-SQ02_27NTR170F | 27                        | H, J | 15                      | 500                                 | 25              | 30  | 29   | 25   | 17   | 2000                 | 1.60                            | 170                              |
| NML-SQ02_30NTR150F | 30                        | H, J | 12                      | 500                                 | 27              | 31  | 26   | 21   | 11   | 1700                 | 2.00                            | 150                              |
| NML-SQ02_33NTR150F | 33                        | H, J | 12                      | 300                                 | 26              | 31  | 23   | 19   | 8    | 1700                 | 2.00                            | 150                              |
| NML-SQ02_36NTR150F | 36                        | H, J | 12                      | 300                                 | 24              | 28  | 20   | 13   | -    | 1500                 | 2.00                            | 150                              |
| NML-SQ02_39NTR150F | 39                        | H, J | 12                      | 300                                 | 25              | 29  | 17   | 11   | -    | 1500                 | 2.00                            | 150                              |
| NML-SQ02_43NTR130F | 43                        | H, J | 12                      | 300                                 | 25              | 28  | 15   | 10   | -    | 1300                 | 2.50                            | 130                              |
| NML-SQ02_47NTR130F | 47                        | H, J | 12                      | 300                                 | 25              | 28  | 14   | 7    | -    | 1300                 | 2.50                            | 130                              |
| NML-SQ02_51NTR130F | 51                        | H, J | 12                      | 300                                 | 25              | 29  | 12   | 6    | -    | 1200                 | 2.50                            | 130                              |
| NML-SQ02_56NTR130F | 56                        | H, J | 12                      | 300                                 | 24              | 27  | 10   | 2    | -    | 1200                 | 2.50                            | 130                              |
| NML-SQ02_62NTR100F | 62                        | H, J | 12                      | 300                                 | 22              | 25  | 7    | 1    | -    | 1100                 | 5.00                            | 100                              |
| NML-SQ02_68NTR100F | 68                        | H, J | 12                      | 300                                 | 21              | 24  | 2    | -    | -    | 1100                 | 5.00                            | 100                              |
| NML-SQ02_75NTR100F | 75                        | H, J | 10                      | 300                                 | 22              | 24  | 1    | -    | -    | 1100                 | 5.00                            | 100                              |
| NML-SQ02_82NTR100F | 82                        | H, J | 10                      | 300                                 | 20              | 20  | -    | -    | -    | 1000                 | 5.00                            | 100                              |
| NML-SQ02_91NTR80F  | 91                        | H, J | 10                      | 300                                 | 19              | 19  | -    | -    | -    | 1000                 | 7.00                            | 80                               |
| NML-SQ02_R10TR80F  | 100                       | H, J | 10                      | 300                                 | 18              | 17  | -    | -    | -    | 900                  | 7.00                            | 80                               |
| NML-SQ02_R11TR80F  | 110                       | H, J | 10                      | 300                                 | 19              | 18  | -    | -    | -    | 900                  | 8.00                            | 80                               |
| NML-SQ02_R12TR80F  | 120                       | H, J | 10                      | 300                                 | 18              | 17  | -    | -    | -    | 800                  | 8.00                            | 80                               |
| NML-SQ02_R13TR80F  | 130                       | H, J | 7                       | 100                                 | 16              | 14  | -    | -    | -    | 700                  | 8.00                            | 80                               |
| NML-SQ02_R15TR80F  | 150                       | H, J | 7                       | 100                                 | 17              | 13  | -    | -    | -    | 700                  | 8.00                            | 80                               |

### NML-SQ02 TYPICAL PERFORMANCE CURVES

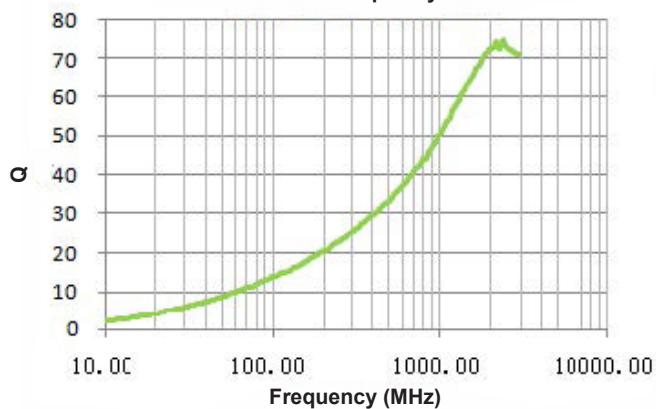




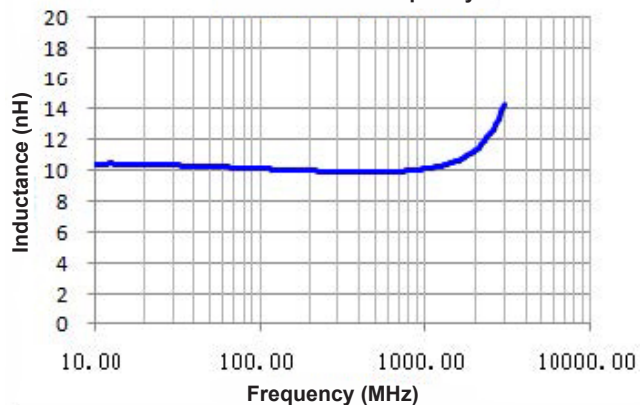
**NML-SQ02\_3N9TR900F**  
Inductance vs. Frequency



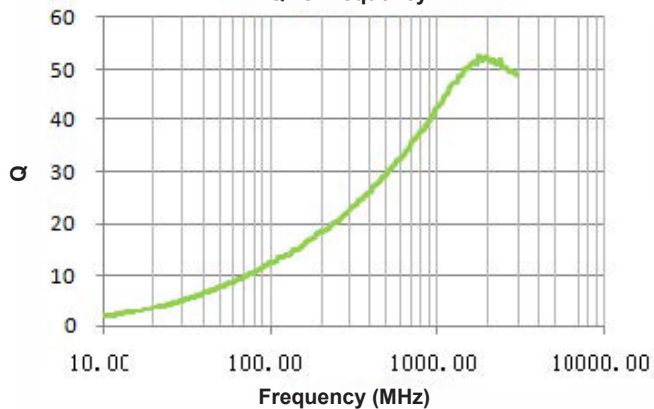
**NML-HQ02\_3N9TR900F**  
Q vs Frequency



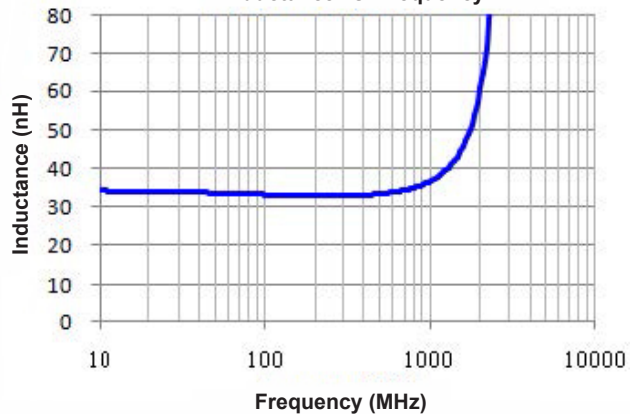
**NML-SQ02\_10NTR300F**  
Inductance vs. Frequency



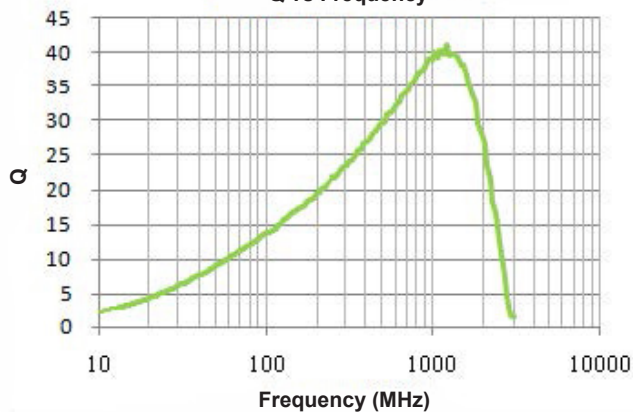
**NML-HQ02\_10NTR300F**  
Q vs Frequency

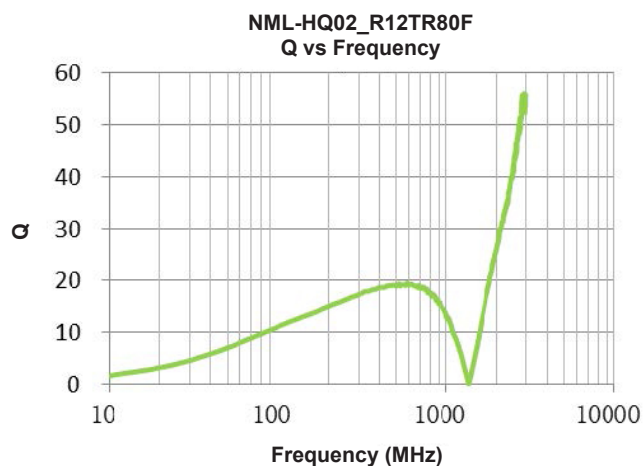
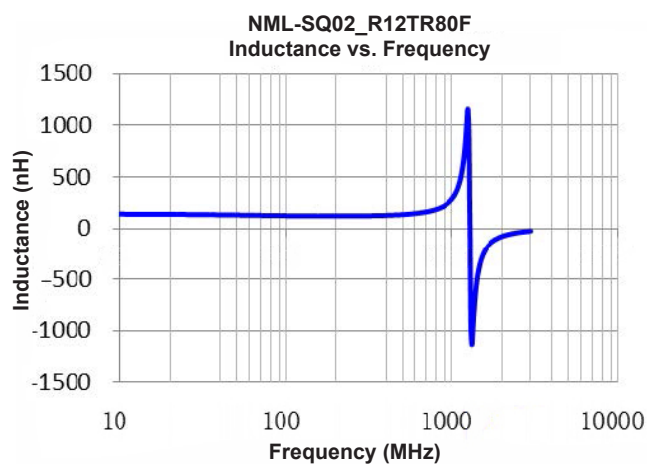
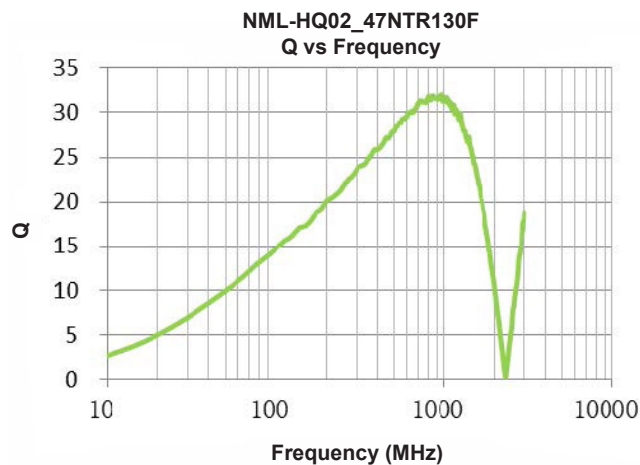
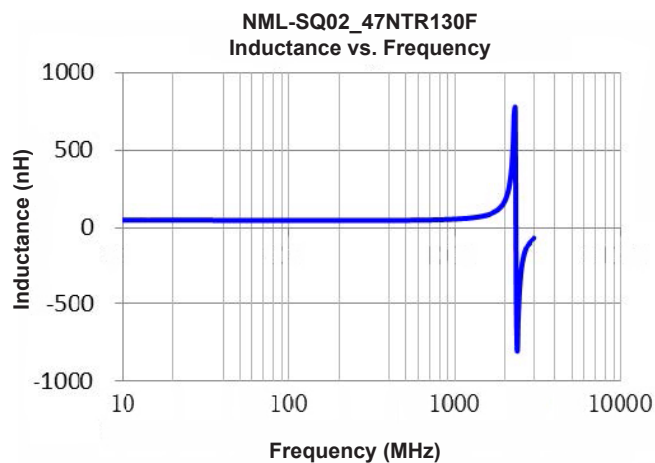


**NML-SQ02\_33NTR150F**  
Inductance vs. Frequency



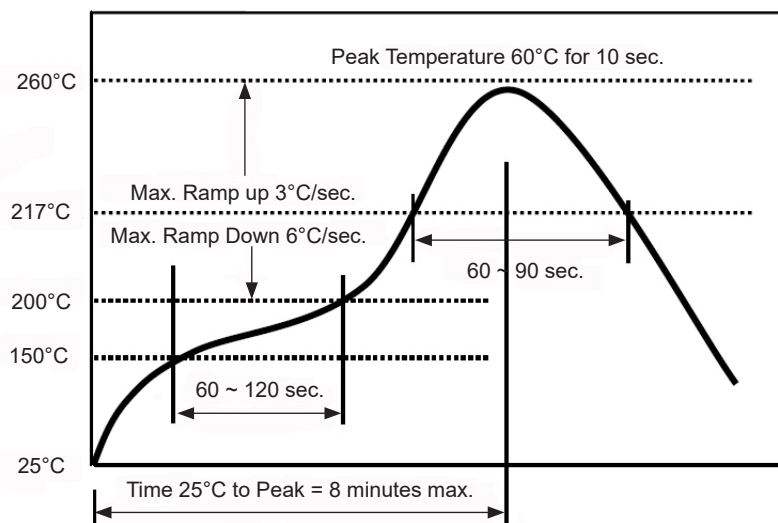
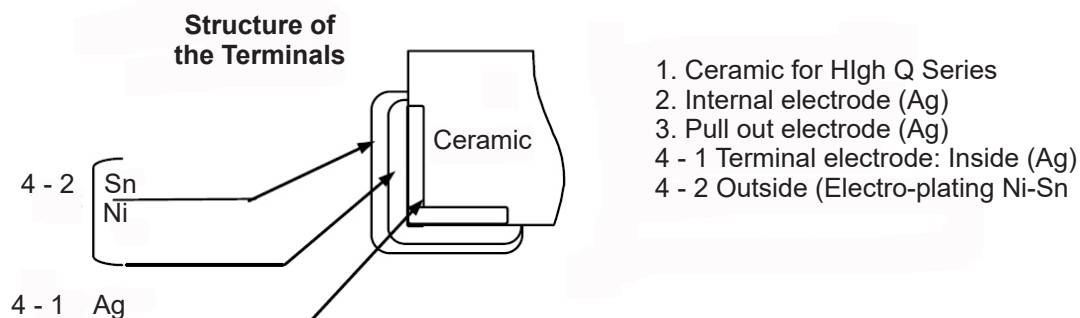
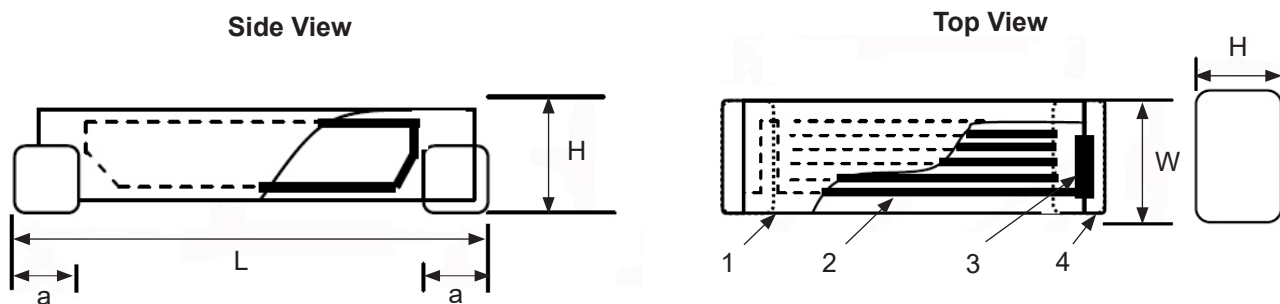
**NML-HQ02\_33NTR150F**  
Q vs Frequency





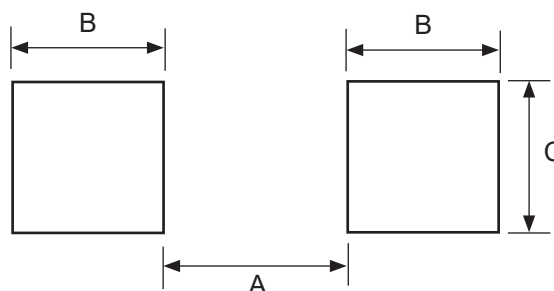


### COMPONENT CONSTRUCTION DETAILS



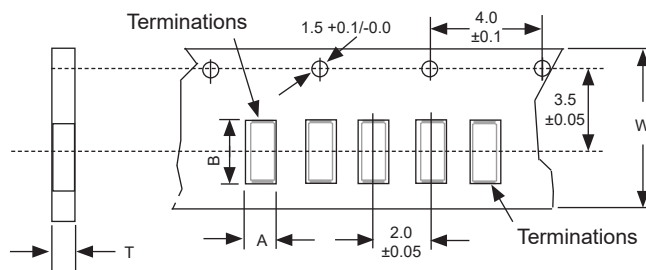
### LAND PATTERN DIMENSIONS (mm)

| Case Size | A           | B           | C           |
|-----------|-------------|-------------|-------------|
| 01005     | 0.15 ~ 0.19 | 0.18 ~ 0.22 | 0.18 ~ 0.22 |
| 0201      | 0.20 ~ 0.30 | 0.25 ~ 0.35 | 0.25 ~ 0.35 |



### PUNCHED CARRIER DIMENSIONS (mm)

| Case Size | A               | B               | T         | W             | QTY/REEL |
|-----------|-----------------|-----------------|-----------|---------------|----------|
| 01005     | $0.24 \pm 0.20$ | $0.44 \pm 0.20$ | 0.35 max. | $8.0 \pm 0.3$ | 15,000   |
| 0201      | $0.36 \pm 0.20$ | $0.68 \pm 0.20$ | 0.50 max. | $8.0 \pm 0.3$ | 15,000   |



### REEL DIMENSIONS (mm):

