

# SPECIFICATION FOR APPROVAL

CUSTOMER: \_\_\_\_\_ PART NO: 20220309G01

DESCRIPTION: FCLH1005-7N5B-NP SUBMIT NO: \_\_\_\_\_

QUANTITY: \_\_\_\_\_ PCS DATE: 2022/3/9

|                                     |         |          |
|-------------------------------------|---------|----------|
| 方瑞达电子（香港）有限公司                       |         |          |
| FONRITA ELECTRONICS (H.K) CO., LTD. |         |          |
| MADE                                | CHECKED | APPROVED |
| 张达                                  | 黎敏      | 邓锋       |

|                      |         |          |
|----------------------|---------|----------|
| 贵公司承认栏               |         |          |
| APPROVED BY MANGEMNT |         |          |
| MADE                 | CHECKED | APPROVED |
|                      |         |          |



方瑞达电子（香港）有限公司

FONRITA ELECTRONICS (H.K) CO., LTD.

地址：广东省深圳市龙华区大浪鹤山路口光浩工业园F栋4楼

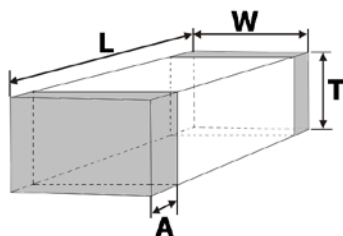
TEL:0755-26617190

FAX:0755-26162625

|                       |                   |                   |                    |
|-----------------------|-------------------|-------------------|--------------------|
| <b>CUSTOMER :</b>     |                   | <b>PART NO.</b>   | <b>20220309G01</b> |
| <b>SPECIFICATIONS</b> |                   | <b>DATE</b>       | 2022/3/9           |
| <b>PART NAME</b>      | <b>DATA SHEET</b> | <b>SPEC(TYPE)</b> | FCLH1005-7N5B-NP   |

**TEST INSTRUMENT**

- 1. HP 4285A PRECISION LCR METER
- 2. WAYNE PMA3260A LCR METER
- 3. ZENTECH 9052 PROGRAMMABLE AUTO SAFETY TESTER
- 4. WAYNE KERR 3265A CURRENT SOURCE



|   |          |     |
|---|----------|-----|
| L | 1.0±0.15 | m/m |
| W | 0.5±0.15 | m/m |
| T | 0.5±0.15 | m/m |
| A | 0.25±0.1 | m/m |

● **PRODUCT IDENTIFICATION:**

FCLH 10 05 - 7N5 B - NP  
 1 2 3 4 5 6

- 1.PRODUCT SYMBOL                    2.OUT SIDE DIA:mm
- 3.BODY HEIGHT :mm                    4.INDUCTANCE:nH
- 5.TOLERANCE :B=±0.1nH    S=±0.3nH    J=±5%
- 6.Meet ROHS Regulations of Prohibited 6 Poisonous Materials

| ELECTRICAL CHARACTERISTICS |         |            |         |      |             |     |  |  |
|----------------------------|---------|------------|---------|------|-------------|-----|--|--|
| ITEM                       | L (nH)  | RDC(Ω)     | IDC(mA) | Q    | SRF(GHz)    |     |  |  |
| SPEC.                      | 100MHz  | Max.       | Max.    | Min. | Min.        |     |  |  |
|                            | 7.5±0.1 | 0.25       | 300     | 8    | 3.7         |     |  |  |
| 1                          |         |            |         |      |             |     |  |  |
| 2                          |         |            |         |      |             |     |  |  |
| 3                          |         |            |         |      |             |     |  |  |
| 4                          |         |            |         |      |             |     |  |  |
| 5                          |         |            |         |      |             |     |  |  |
| 6                          |         |            |         |      |             |     |  |  |
| 7                          |         |            |         |      |             |     |  |  |
| 8                          |         |            |         |      |             |     |  |  |
| 9                          |         |            |         |      |             |     |  |  |
| 10                         |         |            |         |      |             |     |  |  |
| $\bar{X}$                  |         |            |         |      |             |     |  |  |
| R                          |         |            |         |      |             |     |  |  |
| TEST CONDITION             | TEMP:   | 25°C       |         |      | HUMIDITY:   | 50% |  |  |
| DRAWN BY                   |         | CHECKED BY |         |      | APPROVED BY |     |  |  |
| 张达                         |         | 黎敏         |         |      | 邓锋          |     |  |  |



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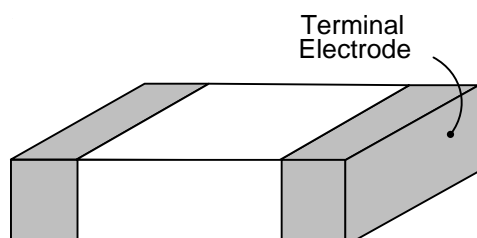
|                       |                      |                   |                         |
|-----------------------|----------------------|-------------------|-------------------------|
| <b>CUSTOMER :</b>     |                      | <b>PART NO.</b>   | <b>20220309G01</b>      |
| <b>SPECIFICATIONS</b> |                      | <b>DATE</b>       | <b>2022/3/9</b>         |
| <b>PART NAME</b>      | <b>MATERIAL LIST</b> | <b>SPEC(TYPE)</b> | <b>FCLH1005-7N5B-NP</b> |

■ Rating:

Operating Temperature: -25°C~85°C

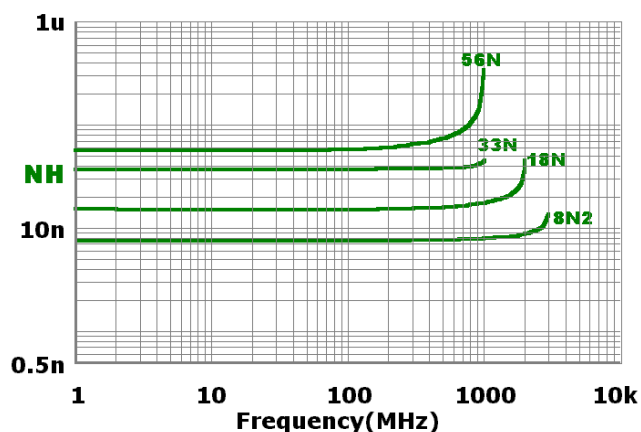
Storage Temperature: -25°C~85°C

■ Marking:

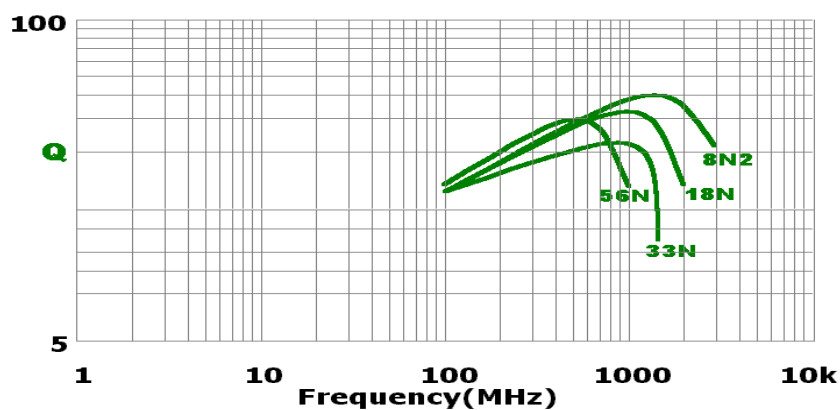


■ Specification

INDUCTANCE VS FREQUENCY CHARACTERISTICS



Q VS FREQUENCY CHARACTERISTICS

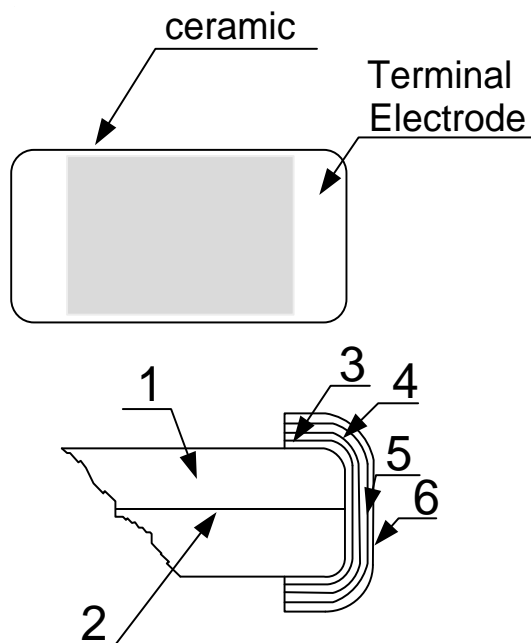


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| <b>CUSTOMER :</b>     |                             | <b>PART NO.</b>   | <b>20220309G01</b> |
| <b>SPECIFICATIONS</b> |                             | <b>DATE</b>       | 2022/3/9           |
| <b>PART NAME</b>      | <b>Series Specification</b> | <b>SPEC(TYPE)</b> | FCLH1005-7N5B-NP   |

■ Construction:



| NO | PART             | MATERLAL        |
|----|------------------|-----------------|
| 1  | Main Substance   | A12o3-B203-Sio2 |
| 2  | Silver electrode | Ag              |
| 3  | Silver electrode | Ag              |
| 4  | Cu plating       | Cu              |
| 5  | Ni plating       | Ni              |
| 6  | Sn plating       | Sn              |

■ Standard Testing Condition

|             | Unless otherwise specified      | In case of doubt |
|-------------|---------------------------------|------------------|
| Temperature | Ordinary Temperature(15 to 35℃) | 20±2℃            |
| Humidity    | Ordinary Humidity(25 to 85% RH) | 60 to 70 % RH    |



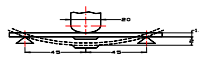
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| <b>CUSTOMER :</b>     |                      | <b>PART NO.</b>   | <b>20220309G01</b> |
| <b>SPECIFICATIONS</b> |                      | <b>DATE</b>       | 2022/3/9           |
| <b>PART NAME</b>      | <b>MATERIAL LIST</b> | <b>SPEC(TYPE)</b> | FCLH1005-7N5B-NP   |

■ Reliability of High Frequency ceramic Chip Inductors (FCLH SERIES)

1.Mechanical Performance

| NO | Item                         | Specification   | Test Method  |
|----|------------------------------|---|--|
| 1  | Flexure Strength             | Appearance :No damage<br>L change :within±0.3nH<br>Q change :within±30%   | Test device shall be soldered on the substrate<br>Substrate Dimension:100*40*1.6mm<br>Deflection:2.0mm<br>Keeping Time:30sec<br>For 100505,substratedimension is 100*40*0.8mm<br> |
| 2  | Vibration                    |   | Test device shall be soldered on the substrate<br>Oscillation Frequency : 10 to 55to 10Hz for 1min<br>Amplitude : 1.5mm<br>Time : 2hrs for each axis (X , Y & Z), TOTAL  |
| 3  | Resistance to Soldering Heat | Appearance :No damage<br>More than 75% of the terminal Electrode should be covered with solder.<br>Impedance: with in ±15% of initial value.<br>Q: within±30%of initial value | Pre-heating: 150°C , 1min<br>Solder Composition: Sn/3.0Ag/0.5Cu<br>Solder Temperature:260±5°C<br>Immersion Time:10±1SEC<br>Measured after exposure in the room condition for 24hrs   |
| 4  | Solderability                | The electrodes shall be at least 90% covered with new solder coating  | Pre-heating : 150°C ,1min<br>Solder Composition :Sn / Ag =96.5/3.5<br>Solder Temperature :245±5°C<br>Immersion Time :4±1sec  |



|                       |                      |                   |                    |
|-----------------------|----------------------|-------------------|--------------------|
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| <b>SPECIFICATIONS</b> |                      | <b>DATE</b>       | 2022/3/9           |
| <b>PART NAME</b>      | <b>MATERIAL LIST</b> | <b>SPEC(TYPE)</b> | FCLH1005-7N5B-NP   |

■ Reliability of High Frequency ceramic Chip Inductors (FCLH SERIES)  
Environmental Performance

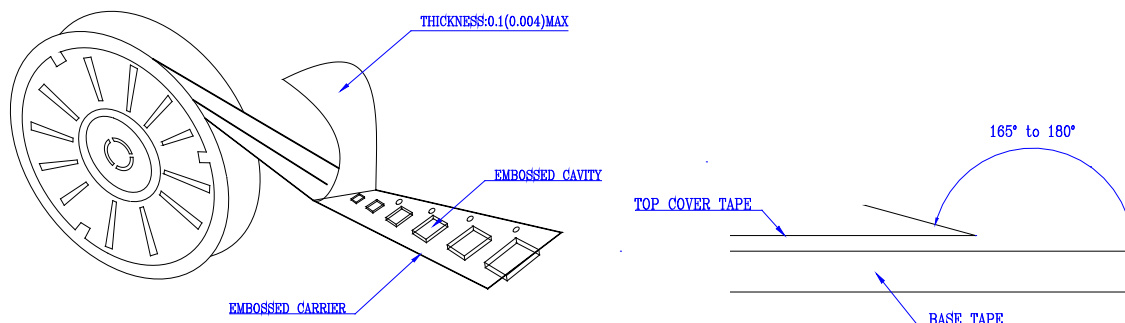
| NO | Item                        | Specification           | Test Method   |                  |   |
|----|-----------------------------|-------------------------|---|------------------|---|
| 1  | Temperature Cycle           | Appearance : No damage  | Once cycle:   |                  |   |
|    |                             | L change : within±0.3nH | Step  | Temperature (°C) | Time(min)   |
|    |                             | Q change : within±30%   | 1   | -25±3            | 30  |
|    |                             |                         | 2   | 25±2             | 3   |
|    |                             |                         | 3   | 85±3             | 30  |
|    |                             |                         | 4   | 25±2             | 3   |
|    |                             | Total:100cycles         |   |                  | Measured after exposure in the room condition for 24hrs |
| 2  | Humidity Resistance         |                         | Temperature :40±2°C<br>Relative Humidity : 90~95%<br>Time : 1000hrs<br>Measured after exposure in the room condition for 24hrs                              |                  |   |
| 3  | Heat Temperature Resistance |                         | Temperature :85±3°C<br>Relative Humidity :20%<br>Applied Current: Rated Current<br>Time :1000hrs<br>Measured after exposure in the room condition for 24hrs |                  |   |
| 4  | Low Temperature Resistance  |                         | Temperature :-25±3°C<br>Relative Humidity:0%<br>Time : 1000hrs<br>Measured after exposure in the room condition for 24hrs                                   |                  |   |



|                       |                           |                   |                         |
|-----------------------|---------------------------|-------------------|-------------------------|
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| <b>SPECIFICATIONS</b> |                           | <b>DATE</b>       | <b>2022/3/9</b>         |
| <b>PART NAME</b>      | <b>CARRIER &amp; REEL</b> | <b>SPEC(TYPE)</b> | <b>FCLH1005-7N5B-NP</b> |

■ **PACKAGING**

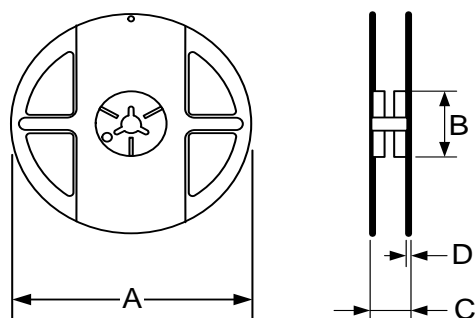
Packaging – Cover tape



Packaging Quantity

| TYPE      | BULK | PCS/REEL |
|-----------|------|----------|
| FCLH-1005 | √    | 10000    |

■ **REEL DIMENSION :m/m**



| TYPE      | A   | B  | C  |
|-----------|-----|----|----|
| FCLH-1005 | 178 | 60 | 12 |



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