

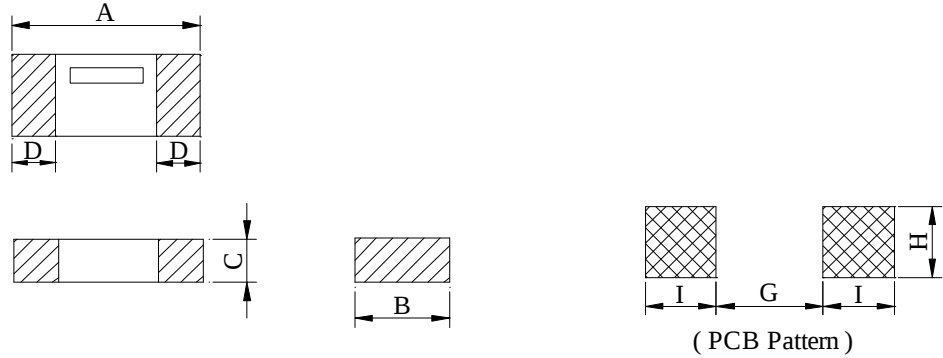
# SPECIFICATION FOR APPROVAL

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|               |                         |                |                  |
|---------------|-------------------------|----------------|------------------|
| PROD.<br>NAME | THIN FILM CHIP INDUCTOR | ABC'S DWG NO.  | AL1608□□□□L□-□□□ |
|               |                         | ABC'S ITEM NO. |                  |

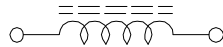
## I . CONFIGURATION & DIMENSIONS :



Unit : m/m

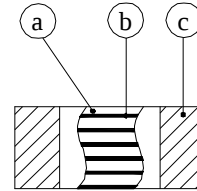
| Series | A         | B         | C         | D         | G   | H   | I   |
|--------|-----------|-----------|-----------|-----------|-----|-----|-----|
| AL1608 | 1.60±0.10 | 0.80±0.10 | 0.45±0.10 | 0.30±0.20 | 0.9 | 0.9 | 0.6 |

## II . SCHEMATIC DIAGRAM :



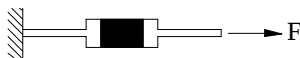
## III . MATERIALS :

- a . Body : Ceramic
- b . Internal conductor : Cu
- c . Terminal electrode : Cu/Ni/Sn
- d . Remark : Products comply with RoHS' requirements



## IV . GENERAL SPECIFICATION :

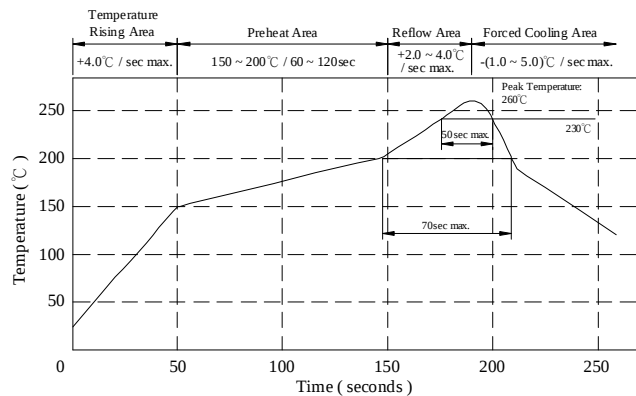
- a . Storage temp. : -40℃ --- +105℃
- b . Operating temp. : -55℃ --- +125℃
- c . Terminal strength :



| Type   | F ( kgf ) | Time ( sec ) |
|--------|-----------|--------------|
| AL1608 | 0.5       | 30±5         |

- d . Solderability : Preheat : 150±25℃ for 60 seconds  
Solder : Sn96.5 / Ag3 / Cu0.5  
or equivalent  
Solder temp. : 260±5℃  
Flux : Rosin  
Dip time : 4±1 seconds

Peak Temp : 260℃ max.  
Max time above 230℃ : 50sec max.  
Max time above 200℃ : 70sec max.



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千如電子集團  
ABC ELECTRONICS GROUP.

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## V . ELECTRICAL CHARACTERISTICS :

| DWG No.          | Inductance<br>( nH ) | Q<br>min | Test Freq.<br>( MHz ) | SRF<br>( GHz )<br>min | DC Resistance<br>( Ω )<br>max | Rated Current<br>( mA )<br>max |
|------------------|----------------------|----------|-----------------------|-----------------------|-------------------------------|--------------------------------|
| AL16081N0DL□-□□□ | 1.0±0.3              | 15       | 300                   | 13.0                  | 0.35                          | 800                            |
| AL16081N2DL□-□□□ | 1.2±0.3              | 15       | 300                   | 13.0                  | 0.35                          | 800                            |
| AL16081N5DL□-□□□ | 1.5±0.3              | 15       | 300                   | 10.0                  | 0.35                          | 800                            |
| AL16081N8DL□-□□□ | 1.8±0.3              | 15       | 300                   | 10.0                  | 0.35                          | 300                            |
| AL16082N2DL□-□□□ | 2.2±0.3              | 15       | 300                   | 8.0                   | 0.35                          | 300                            |
| AL16082N7DL□-□□□ | 2.7±0.3              | 15       | 300                   | 6.0                   | 0.45                          | 300                            |
| AL16083N3DL□-□□□ | 3.3±0.3              | 15       | 300                   | 6.0                   | 0.45                          | 300                            |
| AL16083N9DL□-□□□ | 3.9±0.3              | 15       | 300                   | 6.0                   | 0.45                          | 300                            |
| AL16084N7DL□-□□□ | 4.7±0.3              | 15       | 300                   | 5.0                   | 0.55                          | 300                            |
| AL16085N6DL□-□□□ | 5.6±0.3              | 15       | 300                   | 5.0                   | 0.65                          | 300                            |
| AL16086N8DL□-□□□ | 6.8±0.3              | 15       | 300                   | 5.0                   | 0.75                          | 300                            |
| AL16088N2DL□-□□□ | 8.2±0.3              | 15       | 300                   | 4.0                   | 0.95                          | 300                            |
| AL160810NJL□-□□□ | 10.0±5 %             | 15       | 300                   | 4.0                   | 0.95                          | 300                            |
| AL160812NJL□-□□□ | 12.0±5 %             | 15       | 300                   | 3.0                   | 1.05                          | 300                            |
| AL160815NJL□-□□□ | 15.0±5 %             | 15       | 300                   | 3.0                   | 1.35                          | 300                            |
| AL160818NJL□-□□□ | 18.0±5 %             | 15       | 300                   | 2.0                   | 1.65                          | 300                            |
| AL160822NJL□-□□□ | 22.0±5 %             | 15       | 300                   | 2.0                   | 1.95                          | 250                            |
| AL160827NJL□-□□□ | 27.0±5 %             | 15       | 300                   | 2.0                   | 2.35                          | 250                            |
| AL160833NJL□-□□□ | 33.0±5 %             | 15       | 300                   | 1.5                   | 2.75                          | 250                            |
| AL160839NJL□-□□□ | 39.0±5 %             | 15       | 300                   | 1.5                   | 3.00                          | 200                            |
| AL160847NJL□-□□□ | 47.0±5 %             | 15       | 300                   | 1.5                   | 3.00                          | 200                            |
| AL160856NJL□-□□□ | 56.0±5 %             | 15       | 300                   | 1.0                   | 5.00                          | 150                            |
| AL160868NJL□-□□□ | 68.0±5 %             | 15       | 300                   | 1.0                   | 5.00                          | 150                            |
| AL1608R10JL□-□□□ | 100.0±5 %            | 15       | 300                   | 1.0                   | 7.50                          | 100                            |

1). □ : Packaging Information... [A] : Bulk [B] : Taping Reel

2). "- □□□ " : Reference code

3). Tolerance : B : ±0.1 C ±0.2 D : ±0.3 G : ±2% J : ±5%

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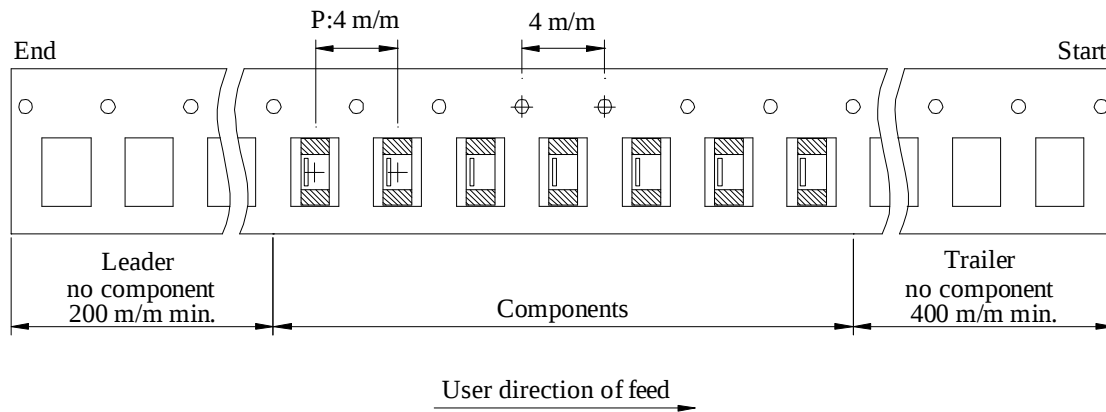
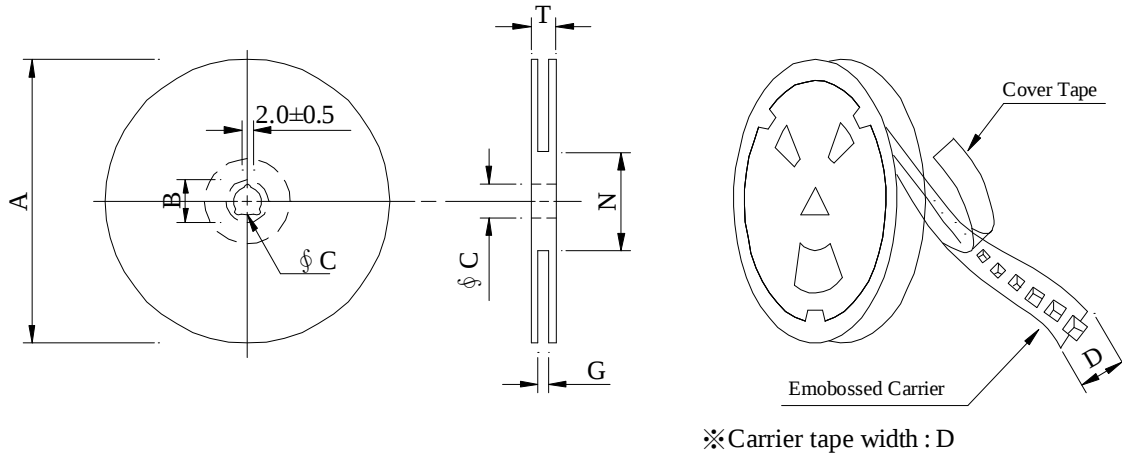
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|               |                         | ABC'S ITEM NO. |                  |

## VI . PACKAGING INFORMATION :

### ( 1 ) Configuration



### ( 2 ) Dimensions

Unit:m/m

| Style   | A   | B      | C  | D | G                | N                | T    |
|---------|-----|--------|----|---|------------------|------------------|------|
| 07 - 08 | 178 | 21±0.8 | 13 | 8 | 10 <sup>+0</sup> | 50 <sup>-0</sup> | 12.5 |

### ( 3 ) Q'TY & G.W. Per package

| Series | Inner : Reel |           |         | Outer : Carton |           |              |
|--------|--------------|-----------|---------|----------------|-----------|--------------|
|        | Q'TY (pcs)   | G.W. (gw) | Style   | Q'TY (pcs)     | G.W. (Kg) | Size (cm)    |
| AL1608 | 5,000        | 90        | 07 - 08 | 250,000        | 7.0       | 41 x 39 x 22 |

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|               |                         | ABC'S ITEM NO. |                  |

VII . DWGING NUMBER EXPRESSION :

A

L

1

6

0

8

Reference code

Appendix code 2 : Package

Appendix code 1 : Classification

Tolerance code

Electrical code

Dimension code

Type code

Appendix code 1 : Product Classification

L : Lead Free Standard products comply with RoHS' requirements

1 ~ 9 : Lead Free Special products comply with RoHS' requirements

Appendix code 2 : Package Information

| Code | Inner package          | Inner package Q'TY | Remark |
|------|------------------------|--------------------|--------|
| A    | T.B.D.                 | T.B.D.             |        |
| B    | T / R ( Reel package ) | 5000    pcs        |        |

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| NAME  |                         | ABC'S ITEM No. |                  |

## VIII . RELIABILITY TEST :

| Test item                             | Specification                                                                     | Test condition                                                                                                                                                              |
|---------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Solderability                         | More than 95% of the terminal electrode<br>Shall be covered<br>With fresh solder. | Preheat : 155℃ / 4 hours.<br>Solder : Sn96.5 / Ag3 / Cu0.5 or equivalent<br>Solder temp. : 235±5℃<br>Flux : Rosin<br>Dip time : 5±0.5 seconds                               |
| Thermal shock test<br>( Temp. cycle ) | Electrical oharacteristics shall not change more than ±20%                        | <div>Room temp.      →      -55 ℃<br/>15 minutes      30 minutes</div> <div>Room temp.      →      +125 ℃<br/>15 minutes      30 minutes</div> <div>Total : 50 cycles</div> |
| Humidity Test                         |                                                                                   | Temperature : 40±2℃<br>Humidity : 90±5%<br>Time : 1000 hours                                                                                                                |
| High temp.<br>Resistance test         |                                                                                   | Temperature : 125±5℃<br>Applied current : Per spec.<br>Time : 96 hours                                                                                                      |

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