

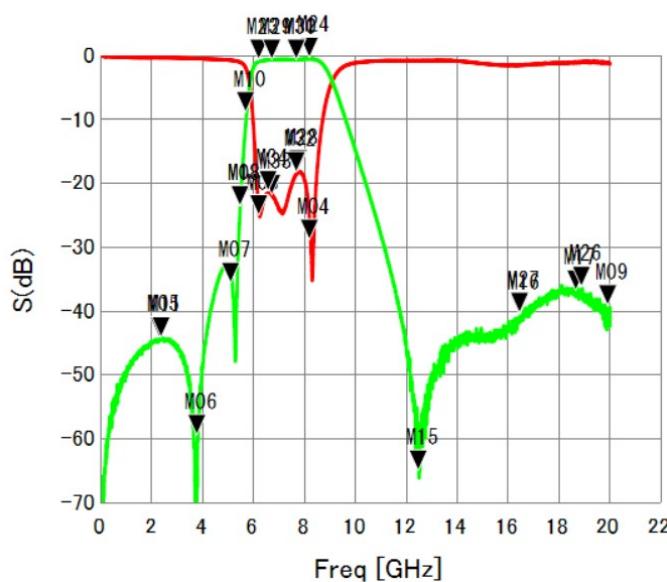
## BAND PASS FILTER

### 1. Characteristics (at -40 ~ +85°C)

|             |                  |  |  |  |  |
|-------------|------------------|--|--|--|--|
| Part Number | LFB187G24CTPF584 |  |  |  |  |
|-------------|------------------|--|--|--|--|

| Item                         | Frequency (MHz)     | SPEC |                 |                 |      | Unit |
|------------------------------|---------------------|------|-----------------|-----------------|------|------|
|                              |                     | Min. | Typ.<br>(+25°C) | Max.<br>(+25°C) | Max. |      |
| Insertion Loss               | 6240.00 ~ 6750.00   | -    | 0.85            | 1.25            | 1.35 | dB   |
| Insertion Loss               | 7730.00 ~ 8240.00   | -    | 0.60            | 0.90            | 1.00 | dB   |
| Return Loss                  | 6240.00 ~ 6750.00   | 11.0 | 21.4            | -               | -    | dB   |
| Return Loss                  | 7730.00 ~ 8240.00   | 11.0 | 18.1            | -               | -    | dB   |
| Attenuation (Absolute value) | 2300.00 ~ 3800.00   | 39.0 | 44.1            | -               | -    | dB   |
| Attenuation (Absolute value) | 5150.00 ~ 5470.00   | 13.0 | 23.6            | -               | -    | dB   |
| Attenuation (Absolute value) | 5470.00 ~ 5725.00   | 3.0  | 8.9             | -               | -    | dB   |
| Attenuation (Absolute value) | 12500.00 ~ 16500.00 | 35.0 | 40.5            | -               | -    | dB   |
| Attenuation (Absolute value) | 18700.00 ~ 20000.00 | 30.0 | 36.4            | -               | -    | dB   |
| Impedance Input (Nominal)    |                     | -    | 50.00           |                 | -    | Ω    |
| Impedance Output (Nominal)   |                     | -    | 50.00           |                 | -    | Ω    |

— S(1,1)  
— S(2,1)



|                |
|----------------|
| M23 : S(2,1)   |
| Freq 6.240G Hz |
| S(dB) -0.846   |

|                |
|----------------|
| M29 : S(2,1)   |
| Freq 6.750G Hz |
| S(dB) -0.600   |

|                   |
|-------------------|
| M31[Min] : S(2,1) |
| Freq 7.741G Hz    |
| S(dB) -0.597      |

|                |
|----------------|
| M03 : S(1,1)   |
| Freq 6.240G Hz |
| S(dB) -25.150  |

|                |
|----------------|
| M33 : S(1,1)   |
| Freq 6.750G Hz |
| S(dB) -21.965  |

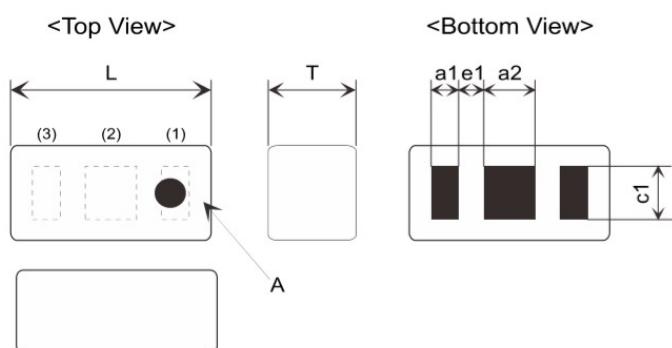
|                   |
|-------------------|
| M34[Max] : S(1,1) |
| Freq 6.614G Hz    |
| S(dB) -21.389     |

|                 |
|-----------------|
| M05 : S(2,1)    |
| Freq 2.300G Hz  |
| S(dB) -44.393   |
| M07 : S(2,1)    |
| Freq 5.150G Hz  |
| S(dB) -35.696   |
| M13 : S(2,1)    |
| Freq 5.470G Hz  |
| S(dB) -23.579   |
| M15 : S(2,1)    |
| Freq 12.500G Hz |
| S(dB) -65.061   |
| M17 : S(2,1)    |
| Freq 18.700G Hz |
| S(dB) -37.017   |

|                 |
|-----------------|
| M06 : S(2,1)    |
| Freq 3.800G Hz  |
| S(dB) -59.696   |
| M08 : S(2,1)    |
| Freq 5.470G Hz  |
| S(dB) -23.579   |
| M10 : S(2,1)    |
| Freq 5.725G Hz  |
| S(dB) -8.862    |
| M16 : S(2,1)    |
| Freq 16.500G Hz |
| S(dB) -40.758   |
| M09 : S(2,1)    |
| Freq 20.000G Hz |
| S(dB) -39.359   |

|                   |
|-------------------|
| M11[Max] : S(2,1) |
| Freq 2.414G Hz    |
| S(dB) -44.133     |
| M27[Max] : S(2,1) |
| Freq 16.479G Hz   |
| S(dB) -40.486     |
| M26[Max] : S(2,1) |
| Freq 18.913G Hz   |
| S(dB) -36.412     |

## 2. Construction, Dimensions & Marking



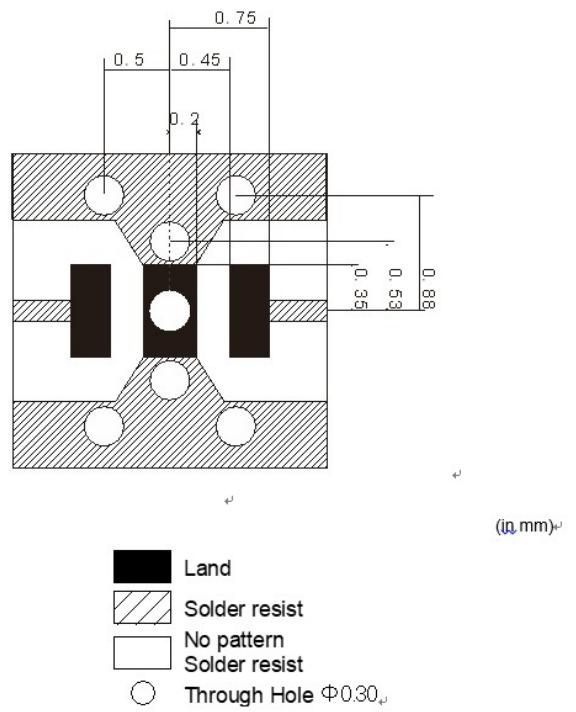
| Mark | Meaning                |
|------|------------------------|
| A    | Directional Input Mark |

| (in mm) |               |      |               |
|---------|---------------|------|---------------|
| Mark    | Dimension     | Mark | Dimension     |
| L       | 1.6 +/- 0.1   | a2   | 0.40 +/- 0.10 |
| W       | 0.8 +/- 0.1   | c1   | 0.70 +/- 0.10 |
| T       | 0.65 max.     | e1   | 0.25 +/- 0.05 |
| a1      | 0.30 +/- 0.10 |      |               |

### TERMINAL CONFIGURATION

| Terminal No. | Terminal Name | Terminal No. | Terminal Name |
|--------------|---------------|--------------|---------------|
| (1)          | IN            | (3)          | OUT           |
| (2)          | GND           | -            | -             |

## 3. Land Pattern

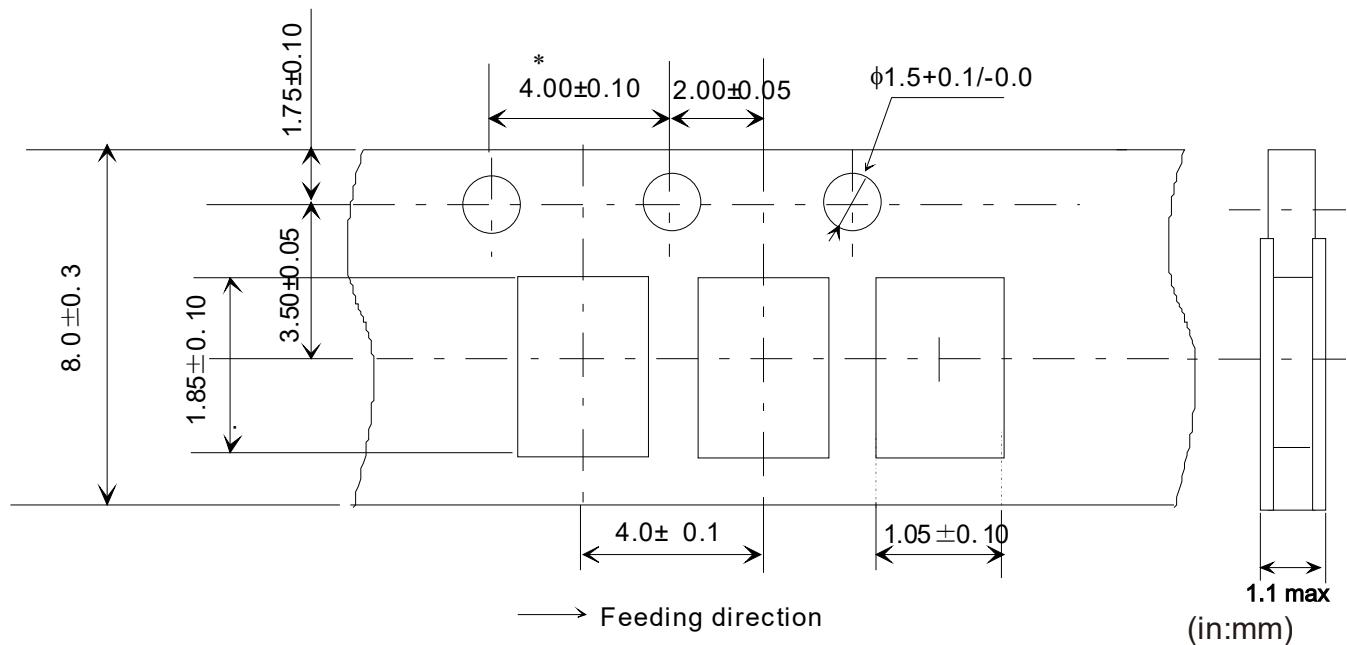


\* Line width to be designed to match 50 ohm characteristic impedance,<sup>4)</sup>  
Depending on PCB material and thickness.<sup>4)</sup>

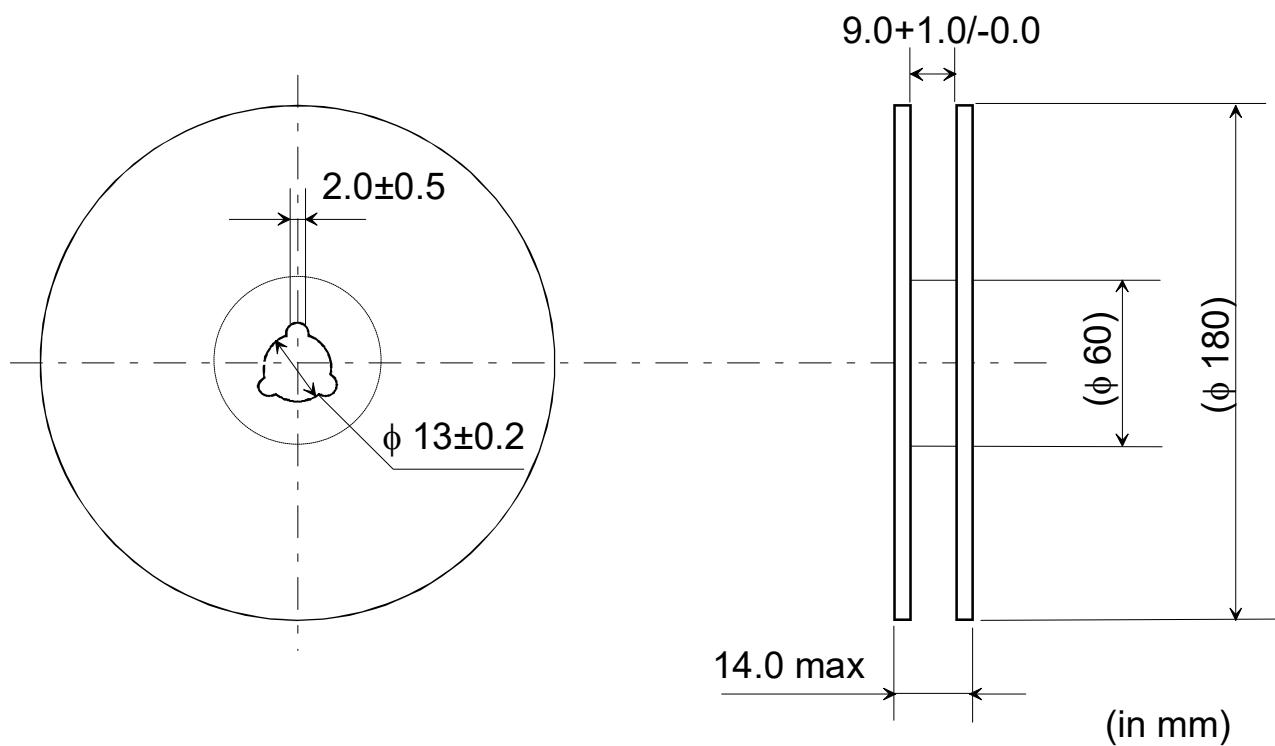
## 4. Tape and Reel Packing

### (1) Dimensions of Tape (Paper tape)

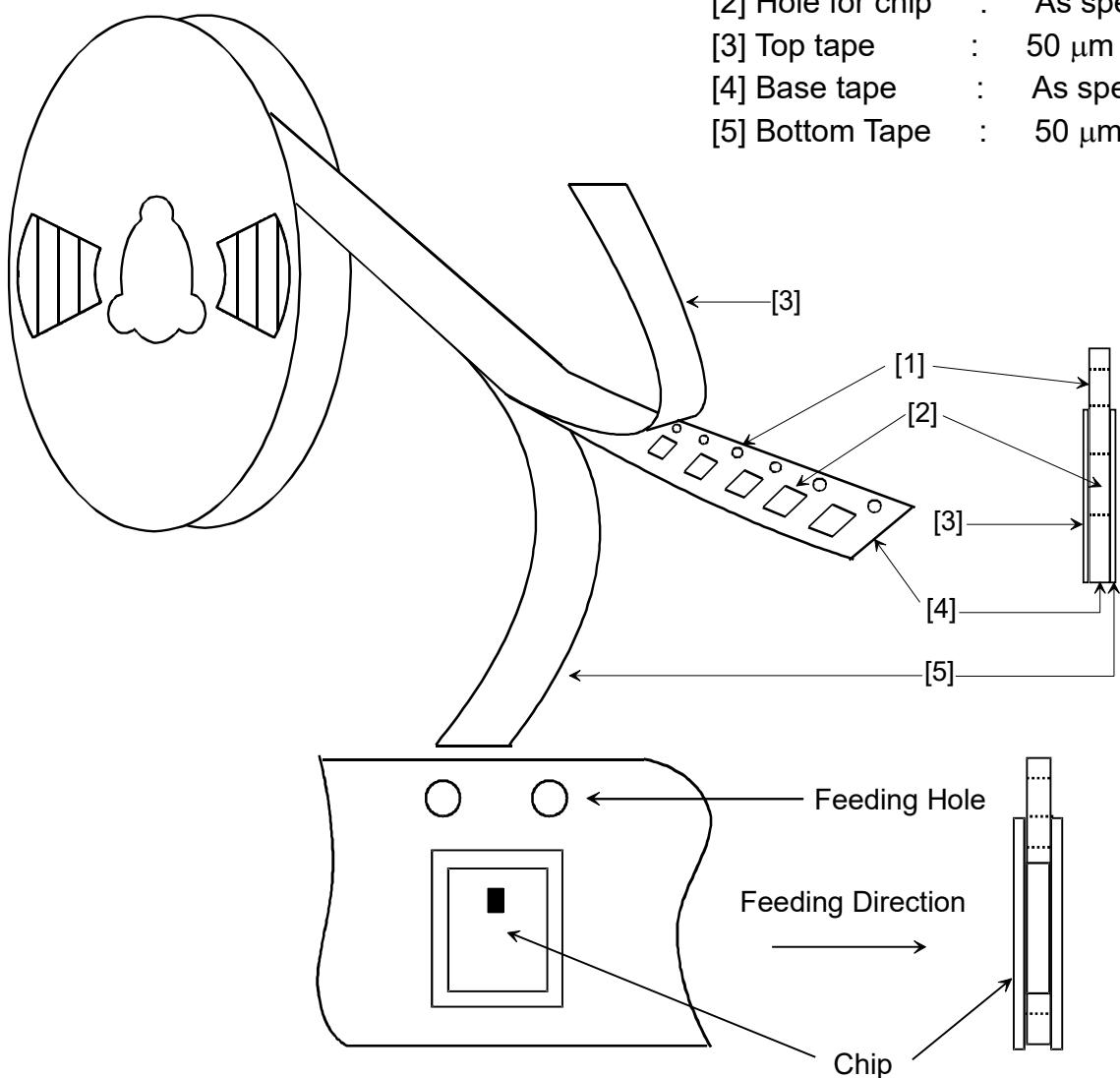
\* Cumulative tolerance of max.  $\pm 0.3$  every 10 pitches.



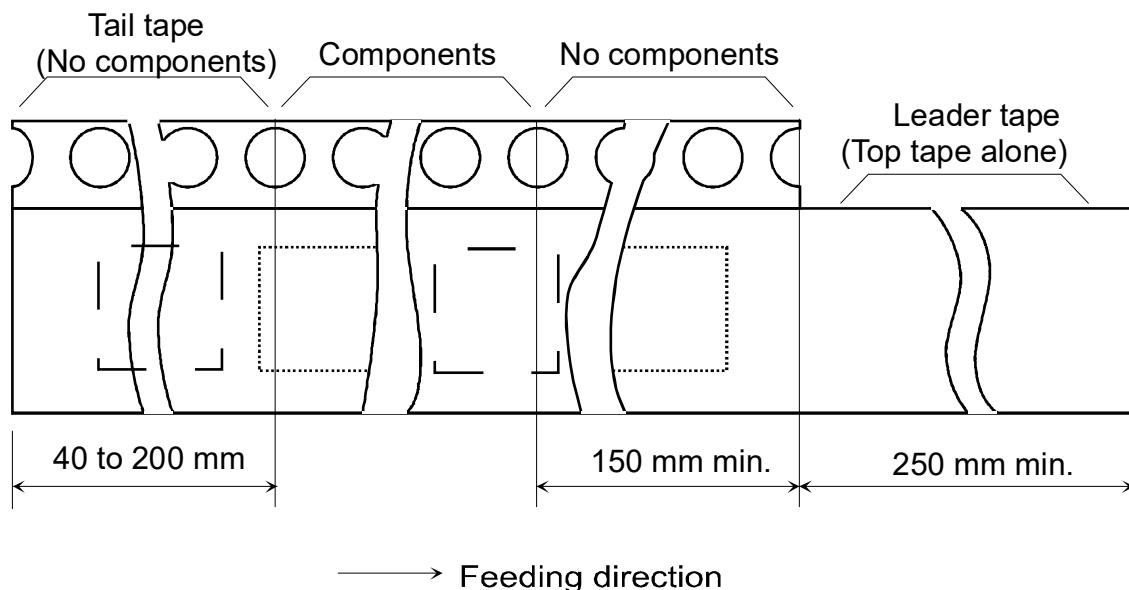
### (2) Dimensions of Reel



(3) Taping Diagrams



(4) Leader and Tail tape



(5) The tape for chips are wound clockwise, the feeding holes to the right side as the tape is pulled toward the user.

(6) The top tape and bottom tape shall not protrude the edges of the tape, and shall not cover sprocket holes.

(7) The top tape and base tape are not adhered at no components area for 250 mm min.

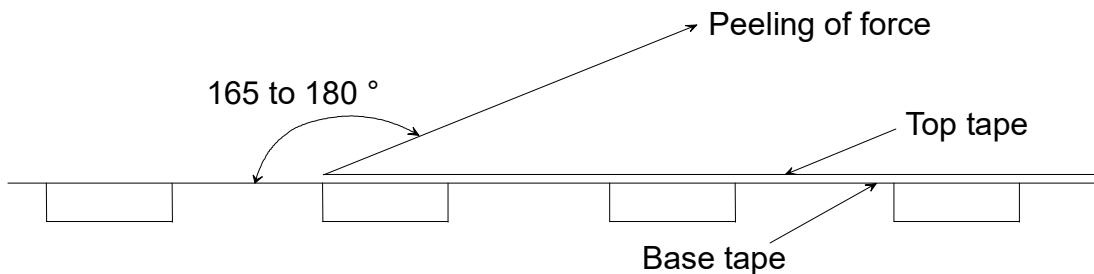
(8) Tear off strength against pulling of top tape and bottom tape : 5N min.

(9) Packaging unit : 4000 pcs. / reel

(10) Material : Base tape .....Paper  
Reel .....Plastic

(11) Peeling of force : in the direction of peeling as shown below.  
Peeling speed : 300mm/min ± 10mm/min

| Tape width | Peeling of force (max) |
|------------|------------------------|
| 8mm        | 1.0N                   |
| 12-56mm    | 1.3N                   |
| 72-200mm   | 1.5N                   |



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