

## Chip RF Jumper 1206

Type: **EXBD6JP**



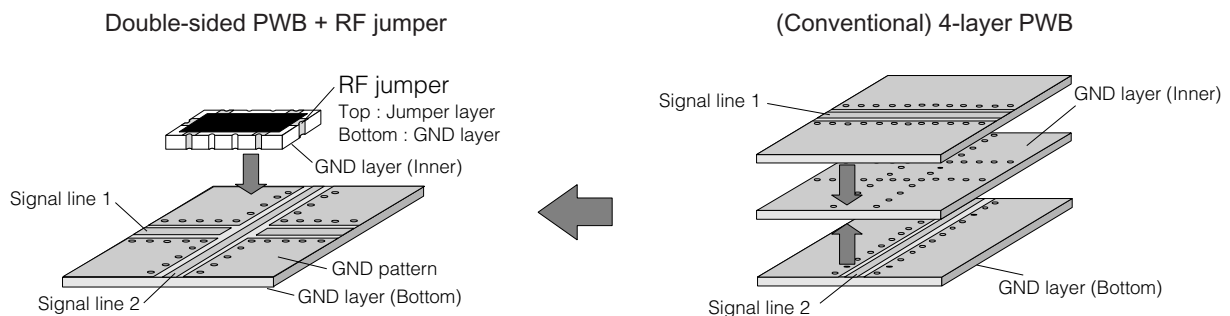
### ■ Features

- Excellent isolation characteristics at high frequencies  
Isolation: 40 dB and more (at the frequency of 2.5 GHz)
- Reduction in the number of layers of printed wiring boards contributes to reducing costs  
The two layers of the printed wiring boards in total are reduced by combining the RF jumper with the double-sided printed wiring boards  
(Two layers reduction compared with the case where only multi-layer boards are used)
- Better impedance-matching characteristics  
Characteristic impedance: 50 Ω  
Return loss: 20 dB and more (at the frequency of 2.5 GHz)

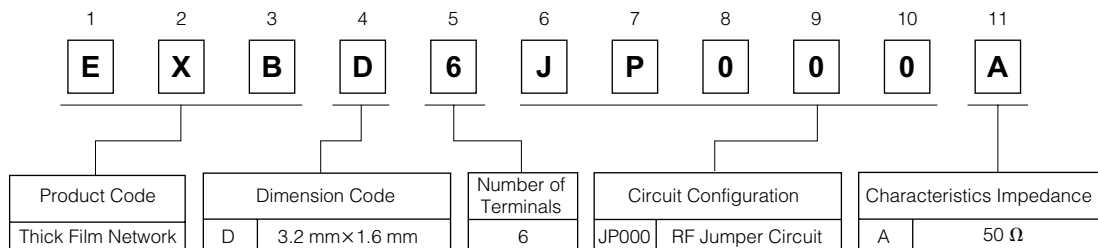
### ■ Recommended Applications

- General electronic equipment (jumper applications in high frequency circuits including LNB and tuner circuits)

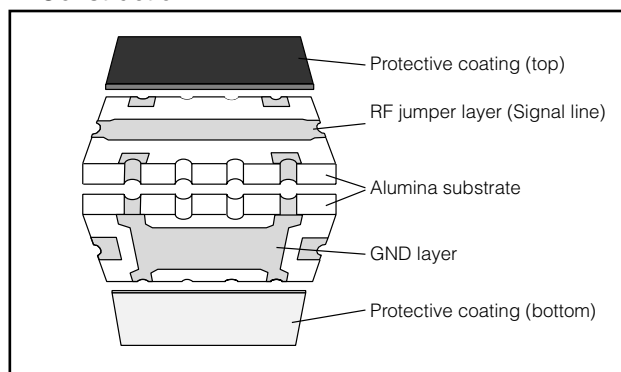
### ■ Example of Use



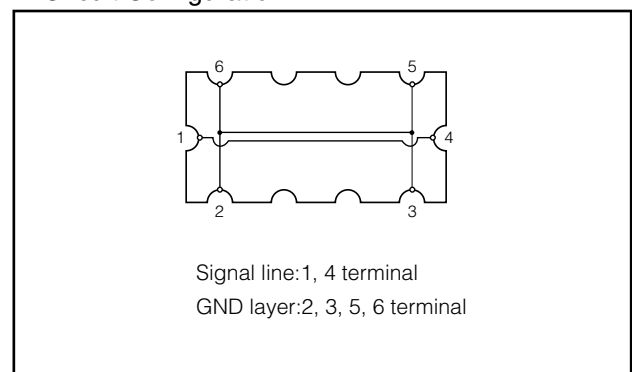
### ■ Explanation of Part Numbers



### ■ Construction



### ■ Circuit Configuration



### ■ Dimensions in mm (not to scale)

Dimensions (mm)	L	W	T	A <sub>1</sub>	B <sub>1</sub>
	3.20±0.15	1.60±0.15	0.55±0.15	0.40±0.15	0.20±0.15
Dimensions (mm)	E <sub>1</sub>	F <sub>1</sub>	A <sub>2</sub>	B <sub>2</sub>	E <sub>2</sub>
	0.40±0.15	0.20±0.15	0.40±0.15	0.38±0.15	0.40±0.15
Dimensions (mm)	F <sub>2</sub>	P	φD		
	0.35±0.15	1.905±0.300	0.20±0.15		

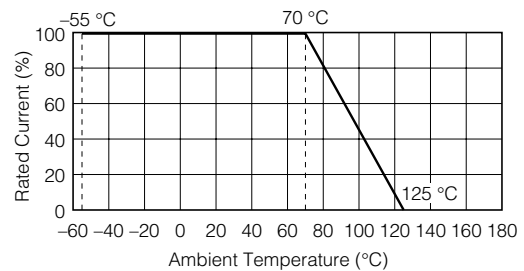
Mass (weight) [1000 pcs.]: 10 g

### ■ Ratings

Item	Specifications
Characteristics Impedance	50 Ω
Isolation	40 dB min. (Frequency: 2.5 GHz)
Return Loss	20 dB min. (Frequency: 2.5 GHz)
Insertion Loss	0.5 dB max. (Frequency: 2.5 GHz)
Rated Current	1 A
Category Temperature Range (Operating Temperature Range)	-55 °C to +125 °C

### Current Derating Curve

For the product operated in ambient temperature above 70 °C current shall be derated in accordance with the figure on the right.

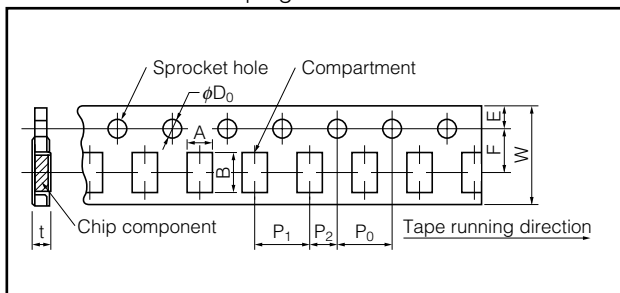


### ■ Packaging Methods (Taping)

#### ● Standard Quantity

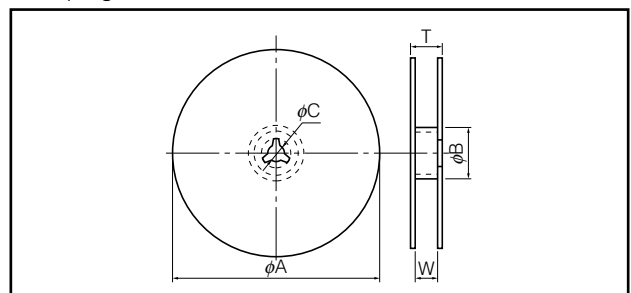
Type	Kind of Taping	Pitch (P <sub>1</sub> )	Quantity
EXBD6JP000A	Punched Carrier Taping	4 mm	5000 pcs./reel

#### ● Punched Carrier Taping



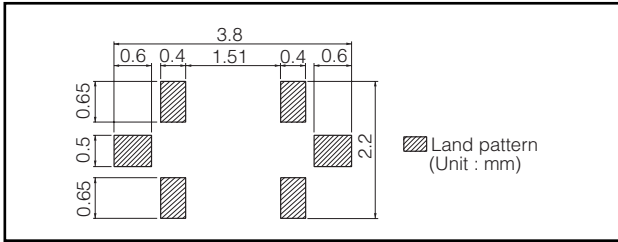
Dimensions (mm)	A	B	W	F	E	P <sub>0</sub>
	2.00 <sup>+0.20</sup>	3.60 <sup>+0.20</sup>	8.00 <sup>+0.20</sup>	3.50 <sup>+0.05</sup>	1.75 <sup>+0.10</sup>	4.00 <sup>+0.10</sup>
Dimensions (mm)	P <sub>1</sub>	P <sub>2</sub>	φD <sub>0</sub>	t		
	4.00 <sup>+0.10</sup>	2.00 <sup>+0.05</sup>	1.50 <sup>+0.10</sup>	0.84 <sup>+0.10</sup>		

#### ● Taping Reel



Dimensions (mm)	φA	φB	φC	W	T
	1.80 <sup>+0</sup> <sub>-3.0</sub>	60 min.	13.0 <sup>+1.0</sup>	9.0 <sup>+1.0</sup>	11.4 <sup>+1.0</sup>

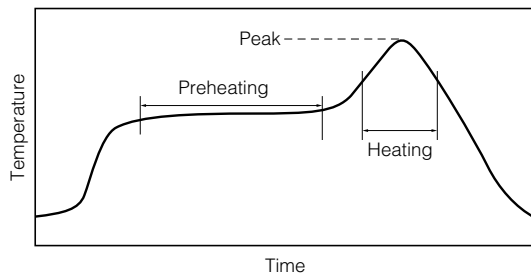
■ Recommended Land Pattern



■ Recommended Soldering Conditions

Recommendations and precautions are described below.

- Recommended soldering conditions for reflow
  - Reflow soldering shall be performed a maximum of two times.
  - Please contact us for additional information when used in conditions other than those specified.
  - Please measure the temperature of the terminals and study every kind of solder and printed circuit board for solderability before actual use.



For soldering (Example : Sn/Pb)

	Temperature	Time
Preheating	140 °C to 160 °C	60 s to 120 s
Main heating	Above 200 °C	30 s to 40 s
Peak	235 ± 5 °C	max. 10 s

For lead-free soldering (Example : Sn/Ag/Cu)

	Temperature	Time
Preheating	150 °C to 180 °C	60 s to 120 s
Main heating	Above 230 °C	30 s to 40 s
Peak	max. 260 °C	max. 10 s

- Flow soldering  
We do not recommended flow soldering to the Chip RF Jumper, because solder bridging may occur due to the narrow pitch of the terminals.

⚠ Safety Precautions

The following are precautions for individual products. Please also refer to the precautions common to Fixed Resistors shown on page ER3 of this catalog.

1. Take measures against mechanical stress during and after mounting of Chip RF Jumper (hereafter called the jumpers) so as not to damage their electrodes and protective coatings.  
Be careful not to misplace the jumpers on the land patterns. Otherwise, solder bridging may occur.
2. If a transient load (heavy load in a short time) like a pulse is expected to be applied, check and evaluate the operations of the jumpers when installed in your products before use.  
Never exceed the rated power. Otherwise, the performance and/or reliability of the jumpers may be impaired.
3. Do not use halogen-based or other high-activity flux. Otherwise, the residue may impair the jumpers' performance and/or reliability.
4. When soldering with a soldering iron, never touch the jumpers' bodies with the tip of the soldering iron. When using a soldering iron with a high temperature tip, finish soldering as quickly as possible (within three seconds at 350 °C max.).
5. As the amount of applied solder becomes larger, the mechanical stress applied to the jumpers increases, causing problems such as cracks and faulty characteristics. Avoid applying an excessive amounts of solder.
6. Do not apply shock to the jumpers or pinch them with a hard tool (e.g. pliers and tweezers). Otherwise, the jumpers' protective coating and body may be chipped, affecting their performance.
7. Avoid excessive bending of printed circuit boards in order to protect the jumpers from abnormal stress.

## ⚠ Safety Precautions (Common precautions for Fixed Resistors)

- When using our products, no matter what sort of equipment they might be used for, be sure to make a written agreement on the specifications with us in advance. The design and specifications in this catalog are subject to change without prior notice.
- Do not use the products beyond the specifications described in this catalog.
- This catalog explains the quality and performance of the products as individual components. Before use, check and evaluate their operations when installed in your products.
- Install the following systems for a failsafe design to ensure safety if these products are to be used in equipment where a defect in these products may cause the loss of human life or other significant damage, such as damage to vehicles (automobile, train, vessel), traffic lights, medical equipment, aerospace equipment, electric heating appliances, combustion/gas equipment, rotating equipment, and disaster/crime prevention equipment.
- \* Systems equipped with a protection circuit and a protection device
- \* Systems equipped with a redundant circuit or other system to prevent an unsafe status in the event of a single fault

### (1) Precautions for use

- These products are designed and manufactured for general and standard use in general electronic equipment (e.g. AV equipment, home electric appliances, office equipment, information and communication equipment)
- These products are not intended for use in the following special conditions. Before using the products, carefully check the effects on their quality and performance, and determine whether or not they can be used.
  1. In liquid, such as water, oil, chemicals, or organic solvent
  2. In direct sunlight, outdoors, or in dust
  3. In salty air or air with a high concentration of corrosive gas, such as Cl<sub>2</sub>, H<sub>2</sub>S, NH<sub>3</sub>, SO<sub>2</sub>, or NO<sub>2</sub>
  4. In an environment where strong static electricity or electromagnetic waves exist
  5. In an environment where these products cause dew condensation
  6. Sealing or coating of these products or a printed circuit board on which these products are mounted, with resin or other materials
- These products generate Joule heat when energized. Carefully position these products so that their heat will not affect the other components.
- Carefully position these products so that their temperatures will not exceed the category temperature range due to the effects of neighboring heat-generating components. Do not mount or place heat-generating components or inflammables, such as vinyl-coated wires, near these products .
- Note that non-cleaning solder, halogen-based highly active flux, or water-soluble flux may deteriorate the performance or reliability of the products.
- Carefully select a flux cleaning agent for use after soldering. An unsuitable agent may deteriorate the performance or reliability. In particular, when using water or a water-soluble cleaning agent, be careful not to leave water residues. Otherwise, the insulation performance may be deteriorated.

### (2) Precautions for storage

The performance of these products, including the solderability, is guaranteed for a year from the date of arrival at your company, provided that they remain packed as they were when delivered and stored at a temperature of 5 °C to 35 °C and a relative humidity of 45 % to 85 %.

Even within the above guarantee periods, do not store these products in the following conditions. Otherwise, their electrical performance and/or solderability may be deteriorated, and the packaging materials (e.g. taping materials) may be deformed or deteriorated, resulting in mounting failures.

1. In salty air or in air with a high concentration of corrosive gas, such as Cl<sub>2</sub>, H<sub>2</sub>S, NH<sub>3</sub>, SO<sub>2</sub>, or NO<sub>2</sub>
2. In direct sunlight

### <Package markings>

Package markings include the product number, quantity, and country of origin. In principle, the country of origin should be indicated in English.