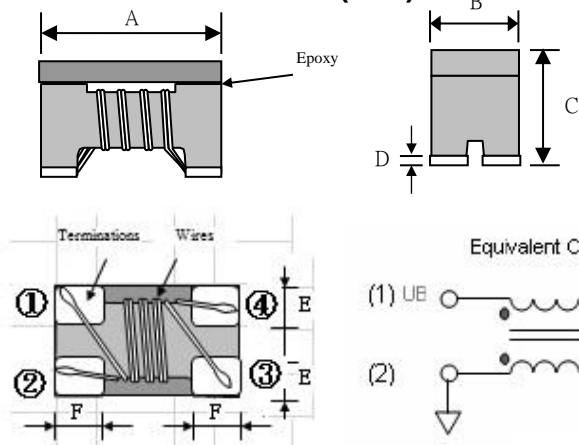


ITEM P/N	BT2012N-750	TEST INSTRUMENT	Network Analyzer
PRODUCT	Chip Balun Transformer	Freq. Range(MHz)	1000~1500

## PACKING DIMENSIONS (mm)



BT2012 N	Dimensions
A	2.0 ± 0.2
B	1.2 ± 0.2
C	1.2 ± 0.2
D	0.2 ± 0.1
E	0.40 Typ
F	0.45 Typ

## EXPLANATION OF PART NUMBERS

1	2	3	4	5	6	7	8	9	10	
B	T	2	0	1	2	N	-	7	5	0
(1)			(2)			(3)		(4)		

(1) Product name

Chip Balun Transformer

(2) Dimensions (L X W) (mm)

2.0 X 1.2

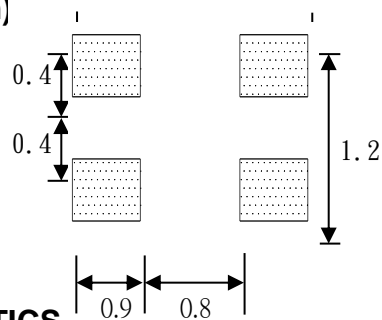
(3) Shielding Type for 1.5 GHz

(4) Impedance

750:75Ω

Recommended Soldering Conditions (Please use this product by reflow soldering)

Recommended Footprint(mm)



## ELECTRICAL CHARACTERISTICS

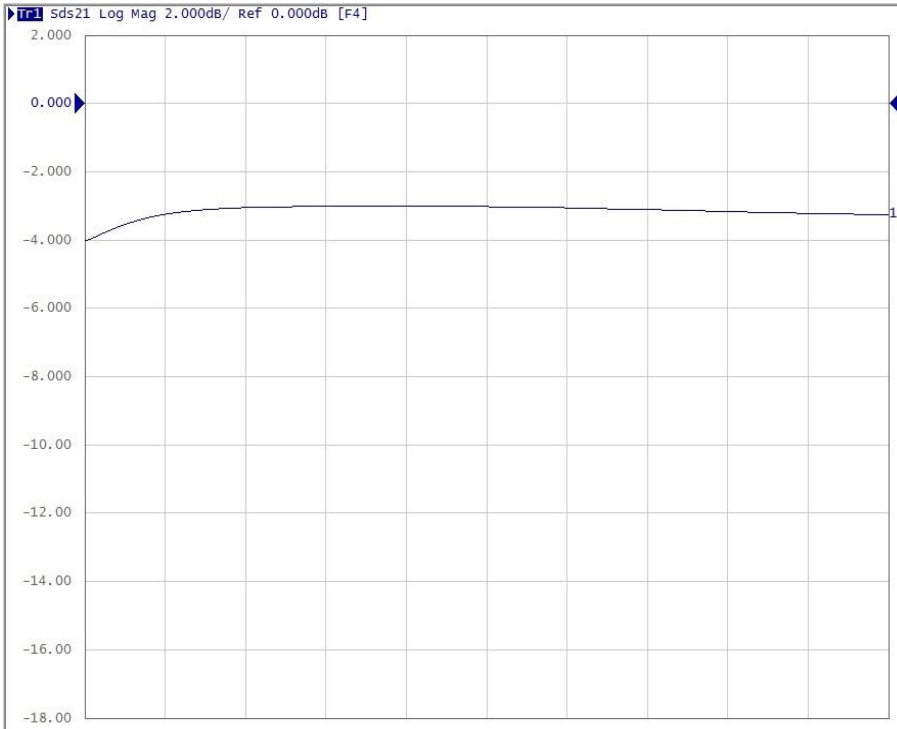
P/N	Freq. Range (MHz)	UB/B Impedance (ohm)	Insertion Loss (dB)	CMRR (dB)	Rated Voltage (DC)	DCR (Ω)	Withstand Voltage (DC)	Insulation Resistance Min. (MΩ)	Rated POWER (dBm)
BT2012N-750	1000~1500	75/75	1.4 max	20 min	20V	0.59	50V	10	27

⊙ Operating and storage temperature range (individual chip without packing): -40°C ~ +85°C.

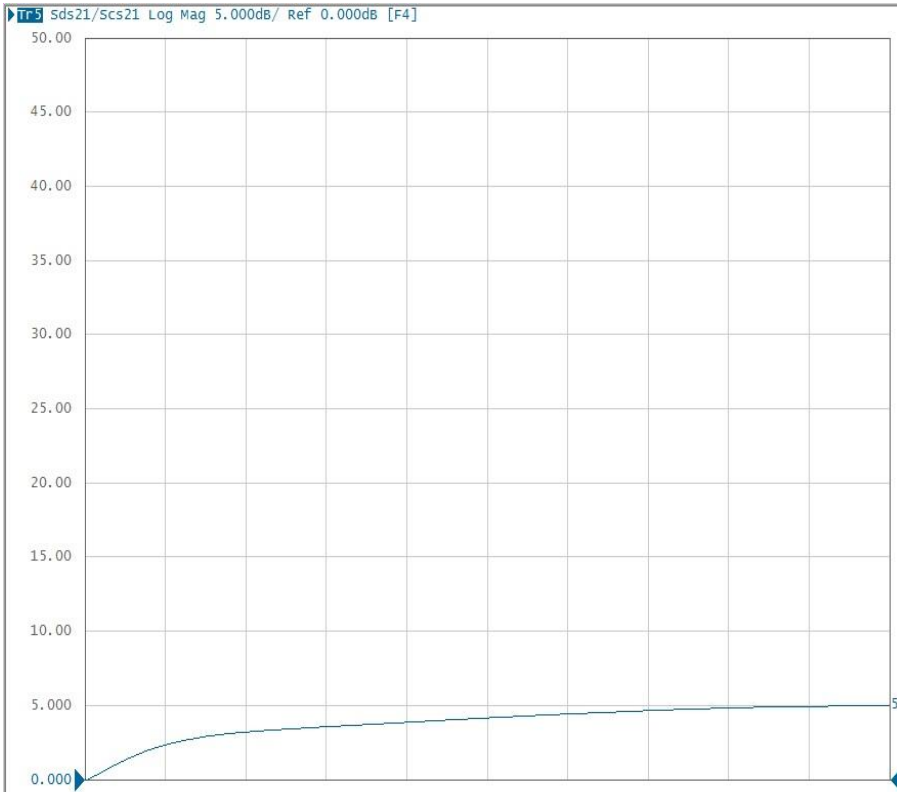
⊙ Storage temperature range (packaging conditions): -10°C ~ +40°C and RH 70% (Max.)

ITEM P/N	BT2012N-750	TEST INSTRUMENT	Network Analyzer
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## Insertion Loss



## CMRR



# CHARACTERISTICS

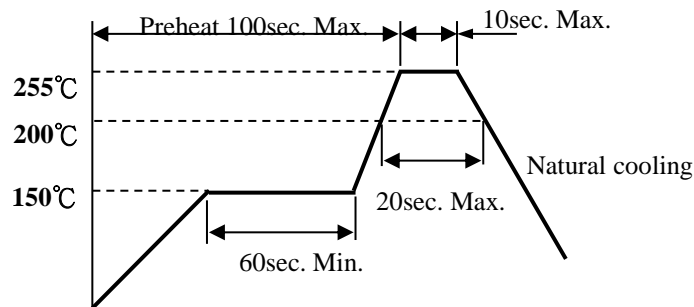


ITEM P/N	BT2012N-750	TEST INSTRUMENT	Network Analyzer
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## Electrical Test

TEST	Requirement	Method Used
Insertion Loss	Refer to Page1 ELECTRICAL CHARACTERISTICS	<p>Insertion Loss is measured with Network Analyzer</p>
CMRR	Refer to Page2 ELECTRICAL CHARACTERISTICS	<p>Common Mode Rejection Ratio (CMRR) is a function of both amplitude imbalance and phase imbalance. If a differential VNA is not available, CMRR can be computed based on single ended measurement.</p> $CMRR[dB] = 20\log_{10}(S_{ds21}/S_{cs21}) = 20\log_{10}\{(S_{21}+S_{31})/(S_{21}-S_{31})\}$ <p>Where,                      S<sub>ds21</sub> is S-parameter of single mode stimulus - Differential mode response                      S<sub>cs21</sub> is S-parameter of single mode stimulus - Common mode response                      It is assumed that the single-ended S-parameters are obtained with proper matched-load termination at each port.</p>
Withstand Voltage	Refer to Page3 ELECTRICAL CHARACTERISTICS	<p>Apply DC Voltage between Terminal 1 and Terminal 2 for 5 seconds. The DC Voltage is 2.5 times of the rated voltage. No damage shall be observed after the testing.</p>
Insulation Resistance	Refer to Page4 ELECTRICAL CHARACTERISTICS	<p>Test equipment: High resistance meter HP4339.                      Apply rated voltage, then measure resistance between Terminal 1 and Terminal2.</p>

ITEM P/N	BT2012N-750	TEST INSTRUMENT	Network Analyzer
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**RECOMMENDED SOLDERING TEMP. GRAPH****MECHANICAL RELIABILITY**

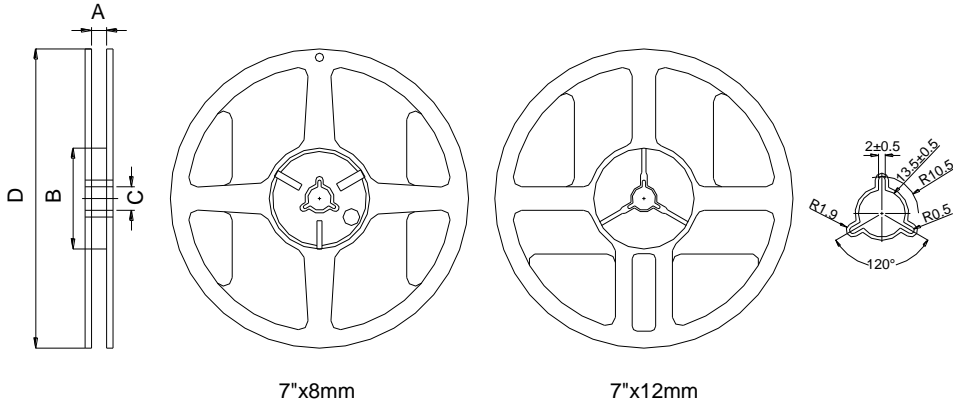
TEST	Specification & Requirement	Method Used
Solderability	The surface of terminal/pin tested shall be covered with new solder by 90%	Solder heat proof: Preheating: 150 ±10°C 60 seconds Soldering: 245 ±5°C for 4 ±1 sec
Solder Heat Resistance	Components should have not evidence of electrical and mechanical damage Impedance: within ±15% of initial value	Preheating: 150°C 60secs Solder temperature: 260±5°C Flux: rosin Dip time: 10±0.5 secs
Terminal strength	Series No.	F (Kg)
	BT2012A-750	0.5
		<p>Solder a chip to test substrate and then laterally apply a force in the arrow direction</p>

**ENDURANCE RELIABILITY**

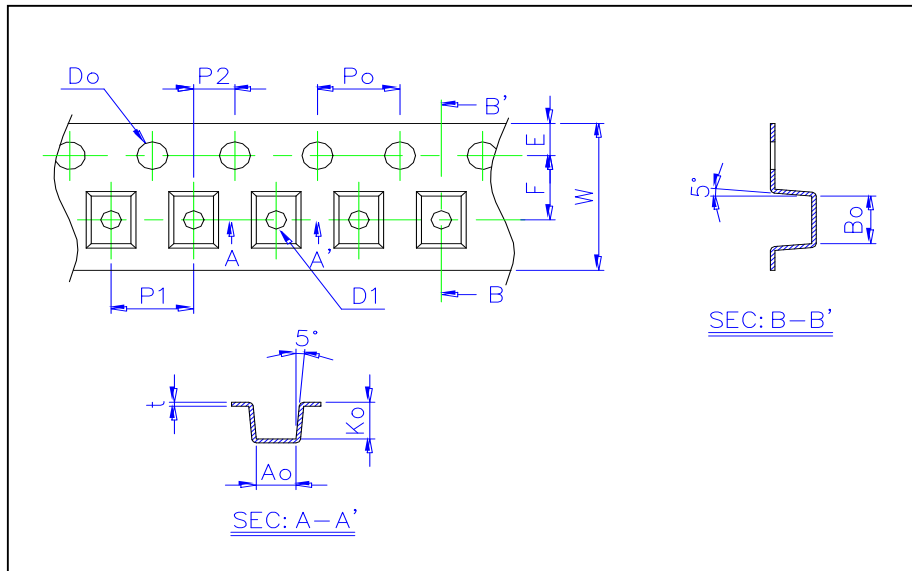
TEST	Specification & Requirement	Method Used
Thermal Shock	Impedance change within ± 15% Without mechanical damage	-65°C, (30 mins) -> room temp. (2 mins) -> 125°C, (30 mins) -> room temp. (2 mins) 50 cycles
Humidity Resistance	Impedance change within ± 15% Without mechanical damage	Apply IDC current @ 60°C ambient Humidity: 90% Duration: 168 hrs
Low Temp. Storing	Impedance change within ± 15% Without mechanical damage	Storing Temp. -40 ±2 °C for total 168 +5/-0 hours
High Temp. Storing	Impedance change within ± 15% Without mechanical damage	Storing Temp. 125 ±2 °C for total 168 +5/-0 hours

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## Reel Dimension & Tape Dimension



Type	A(mm)	B(mm)	C(mm)	D(mm)
7"x8mm	9.0±0.5	60±2	13.5±0.5	178±2



Size	Ao(mm)	Bo(mm)	Ko(mm)	W(mm)	E(mm)	F(mm)	Po(mm)	P1(mm)	Do(mm)
2012	2.35±0.10	1.50±0.10	1.45±0.10	8.00±0.20	1.75±0.10	3.50±0.05	4.0±0.05	4.0±0.10	1.0±0.1

## Packaging Quantity

Chip Size	2012
8mm/ Reel	2000