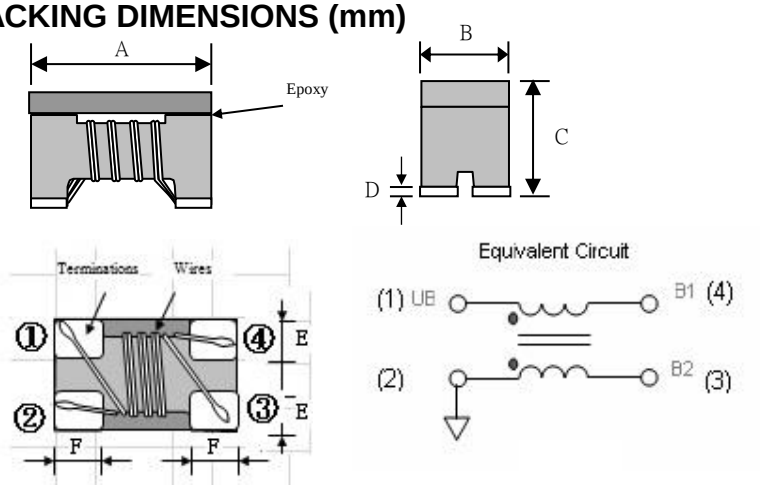
Version: 1.0

SPECIFICATION

RoHS COMPLIANT

ITEM P/N	BT2012B-500	TEST INSTRUMENT	Network Analyzer
PRODUCT	Chip Balun Transformer	Freq. Range(MHz)	40~860

PACKING DIMENSIONS (mm)



BT2012B	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	B	- 5	0	0
(1)				(2)		(3)		(4)	

(1) Product name
Chip Balun Transformer

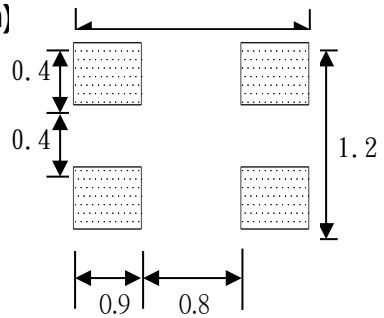
(2) Dimensions (L X W) (mm)
2.0 X 1.2

(3) Shielding Type for 1.0 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 (V)	Withstand Voltage (DC)	Insulation Resistance Min. (MΩ)
BT2012B-500	40~860	50/50	2.5 max	20 min	20	125V	10

- Operating and storage temperature range (individual chip without packing): -40℃~ +85℃.
- Storage temperature range (packaging conditions): -10℃~ +40℃ and RH 70% (Max.)

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CHARACTERISTICS

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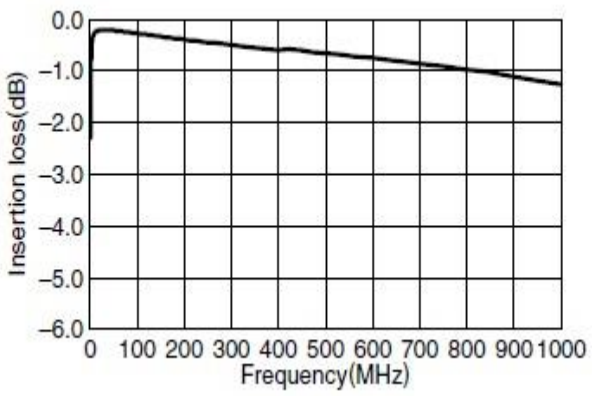
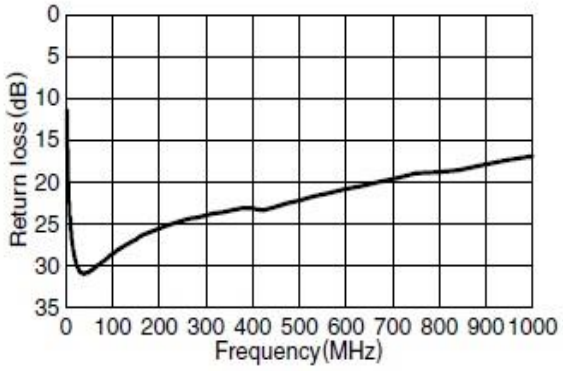
PRODUCT	Chip Balun Transformer	Freq. Range(MHz)	40~860

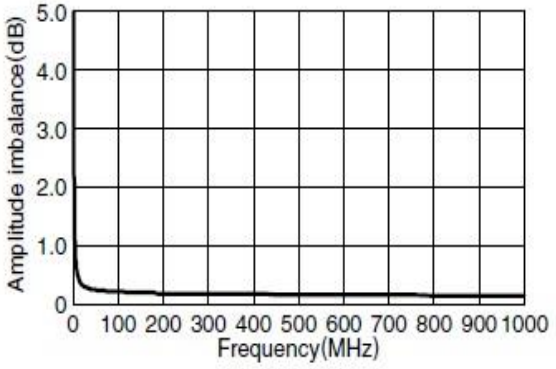
Insertion Loss



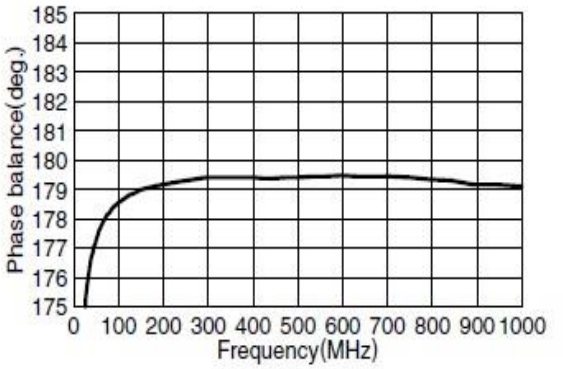
Return Loss



Amplitude Imbalance



Phase Balance



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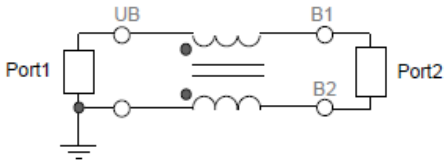
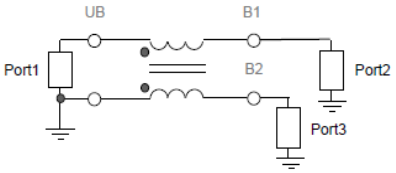
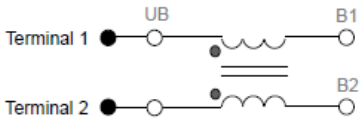
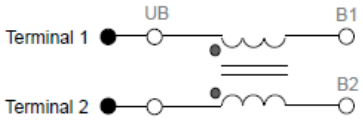
CHARACTERISTICS

RoHS COMPLIANT

ITEM P/N	BT2012B-500	TEST INSTRUMENT	Network Analyzer
PRODUCT	Chip Balun Transformer	Freq. Range(MHz)	40~860

Electrical Test

TEST	Requirement	Method Used
Insertion Loss	Refer to Page1 ELECTRICAL CHARACTERISTICS	Insertion Loss is measured with Network Analyzer 
CMRR	Refer to Page2 ELECTRICAL CHARACTERISTICS	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. CMRR[dB] = 20log10(Sds21/Scs21) = 20log10{(S21+S31)/(S21-S31)} Where, Sds21 is S-parameter of single mode stimulus - Differential mode response Scs21 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. 
Withstand Voltage	Refer to Page3 ELECTRICAL CHARACTERISTICS	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. 
Insulation Resistance	Refer to Page4 ELECTRICAL CHARACTERISTICS	Test equipment: High resistance meter HP4339. Apply rated voltage, then measure resistance between Terminal 1 and Terminal2. 

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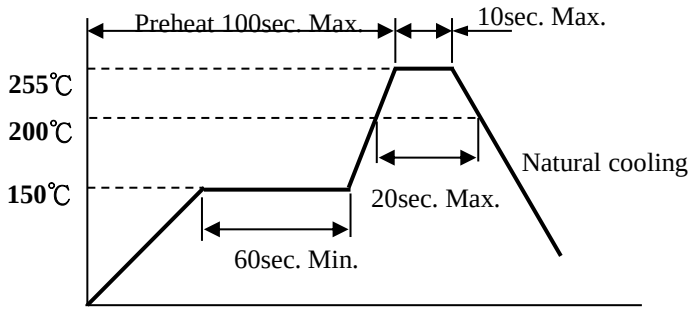
RELIABILITY

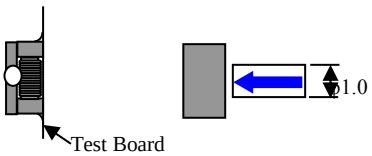
RoHS COMPLIANT

ITEM P/N	BT2012B-500	TEST INSTRUMENT	Network Analyzer
PRODUCT	Chip Balun Transformer	Freq. Range(MHz)	40~860

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℃ 60 seconds Soldering: 245 ±5℃ for 4 ±1 sec
Solder Heat Resistance	Components should have not evidence of electrical and mechannical damage Impedance:within ±15% of initial value		Preheating:150℃ 60secs Solder temperature: 260±5℃ Flux:rosin Dip time:10±0.5 secs
Terminal strength	Series No.	F（Kg）	Solder a chip to test substrate and then laterally apply a force in the arrow direction 
	BT2012A-750	0.5	

ENDURANCE RELIABILITY

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

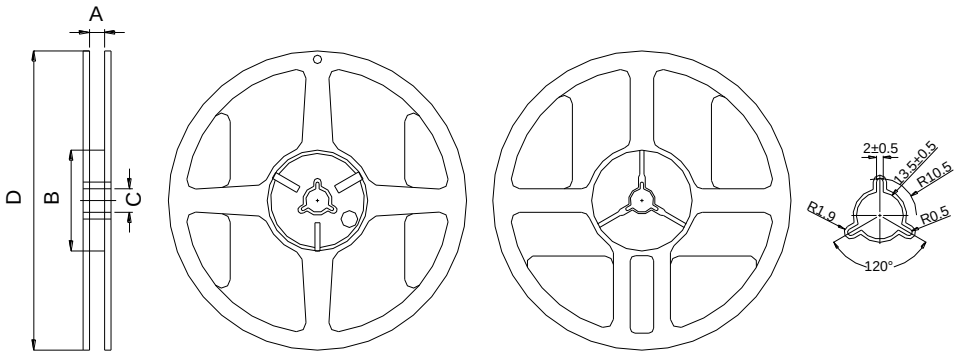
Version: 1.0

PACKING FOR SMD

RoHS COMPLIANT

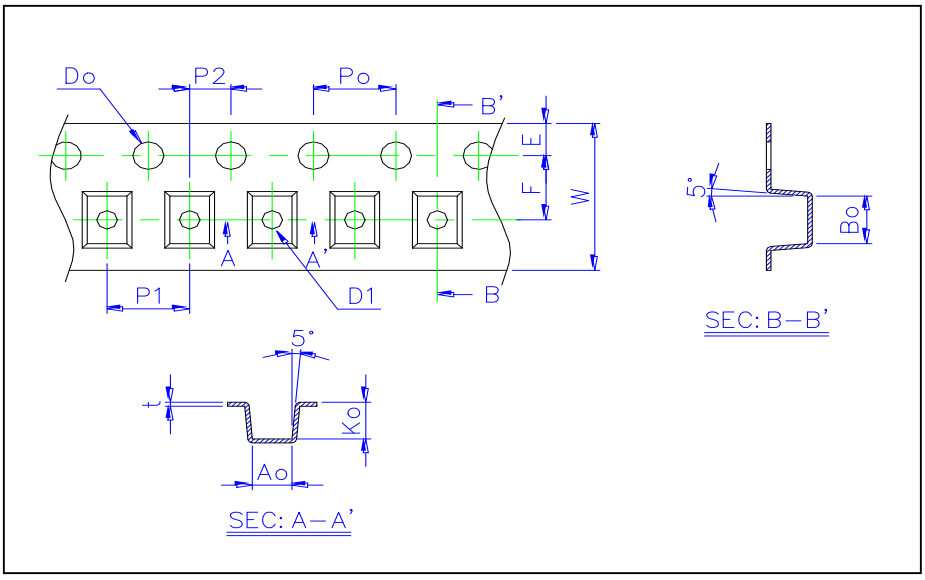
ITEM P/N	BT2012B-500	TEST INSTRUMENT	Network Analyzer
PRODUCT	Chip Balun Transformer	Freq. Range(MHz)	40~860

Reel Dimension & Tape Dimension



7"x8mm　　7"x12mm

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