

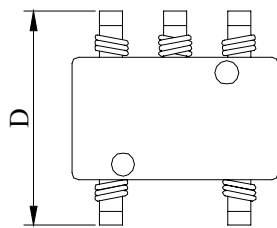
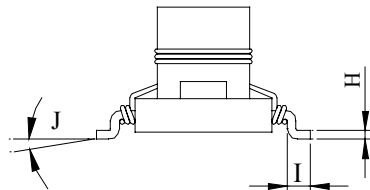
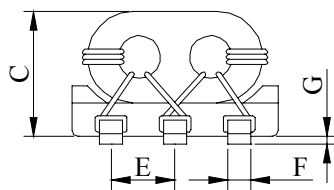
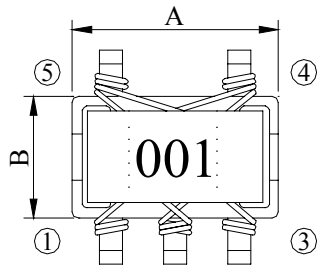
SPECIFICATION FOR APPROVAL

REF :

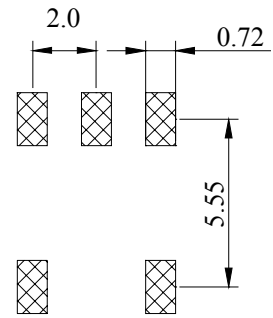
PAGE: 1

PROD. NAME	SMD BALUN TRANSFORMER	DWG NO.	BRN6044 Series
		ITEM NO.	

I . MECHANICAL DIMENSIONS :



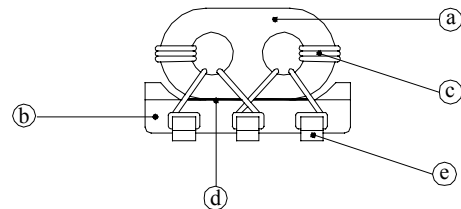
- A : 6.20±0.20 m/m
- B : 4.00±0.20 m/m
- C : 4.40 max. m/m
- D : 6.40±0.30 m/m
- E : 2.00 typ. m/m
- F : 0.60±0.05 m/m
- G : 0.20±0.10 m/m
- H : 0.30±0.10 m/m
- I : 0.70±0.05 m/m
- J : 0°~ 8° m/m



(PCB Pattern)

II . MATERIALS :

- a. Core : Ferrite RID core
- b. Base : Phenolic
- c. Wire : Enamelled copper wire (class F)
- d. Adhesive : Epoxy resin
- e. Terminal : Cu/Ni/Sn (Lead content 100ppm max.)
- f. Remark : Ferrite body is exempted with lead content under RoHS regulation



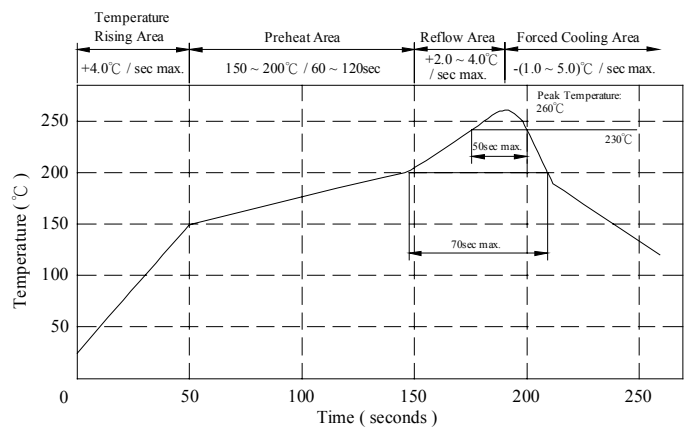
III . FEATURES :

- a. Paired wire coil for high stability.
- b. Base Pin terminal treated , Allowing Mounting 'AS IS' ON A PCB.

IV . APPLICATIONS :

- a. Double balance mixers , Broad-Band Transformers, Impedance Transformers , ETC.

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



AE-001A

SPECIFICATION FOR APPROVAL

REF :

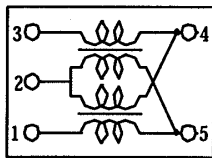
PAGE: 2

PROD. NAME	SMD BALUN TRANSFORMER	DWG NO.	BRN6044 Series
		ITEM NO.	

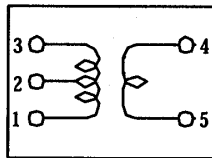
V . ELECTRICAL CHARACTERISTICS :

DWG NO.	WINDING TURNS	OPERATING FREQUENCY RANGE	INSERTION LOSS	FIG.
BRN6044-0001S	1	50.0MHz-400.0MHz	10.0dB max.	1
BRN6044-0002S	2	10.0MHz- 1.0GHz	6.0dB max.	1
BRN6044-0003S	3	8.0MHz-800.0MHz	3.5dB max.	1
BRN6044-0004S	4	6.0MHz-600.0MHz	2.5dB max.	1
BRN6044-0005S	5	5.0MHz-500.0MHz	2.0dB max.	1
BRN6044-0006S	2	400.0MHz- 1.3GHz	4.0dB max.	1
BRN6044-0007S	Pri 1x2 Sec 1	25.0MHz-450.0MHz	8.0dB max.	2
BRN6044-0008S	Pri 2x2 Sec 2	9.0MHz-350.0MHz	3.0dB max.	2
BRN6044-0009S	Pri 3x2 Sec 3	3.5MHz-470.0MHz	3.0dB max.	2
BRN6044-0010S	Pri 4x2 Sec 4	2.2MHz-400.0MHz	3.0dB max.	2
BRN6044-0011S	Pri 5x2 Sec 5	1.5MHz-300.0MHz	3.0dB max.	2
BRN6044-0012S	4	6.0MHz-600.0MHz	IN to OUT-1 1.3dB max. IN to OUT-2 11dB~14dB	3
BRN6044-0013S	5	6.0MHz-600.0MHz	IN to OUT-1 0.9dB max. IN to OUT-2 13dB~16dB	3
BRN6044-0014S	6	6.0MHz-600.0MHz	IN to OUT-1 0.8dB max. IN to OUT-2 15dB~17dB	3
BRN6044-0015S		20.0MHz-600.0MHz	IN to OUT-1,2 4.5dB max. OUT-1 to OUT-2 (ISOLATION) 10dB min.	4

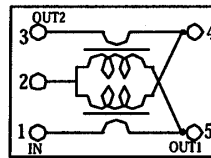
VI . SCHEMATIC DIAGRAM :



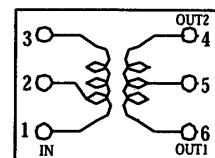
Double balanced mixer
Fig.1



Transformer
Fig.2



Directional coupler
Fig.3



Distributor
Fig.4

AE-001A

Bourns Inductive Solution

SPECIFICATION FOR APPROVAL

REF :

PAGE: 3

PROD. NAME	SMD BALUN TRANSFORMER	DWG NO.	BRN6044 Series	
		ITEM NO.		

VII . PACKAGING INFORMATION :
(1) CONFIGURATION

(2) DIMENSIONS Unit:m/m

STYLE	A	B	C	D	G	N	T
07 - 16	178	21 ± 0.8	13	16	18 ⁺⁰	50 ⁻⁰	22.4
13 - 16	330	21 ± 0.8	13	16	18 ⁺⁰	50 ⁻⁰	22.4

(3) QTY & G.W. PER PACKAGE

SERIES	INNER : REEL			OUTER : CARTON		
	QTY (PCS)	G.W. (gw)	STYLE	QTY (PCS)	G.W. (Kg)	SIZE (cm)
BRN6044	300	113	07 - 16	12,000	5.2	39 x 38 x 21.5
BRN6044	1,000	450	13 - 16	8,000	4.2	40 x 40 x 24

AE-001A

Bourns Inductive Solution

SPECIFICATION FOR APPROVAL

REF :

PAGE: 4

PROD. NAME	SMD BALUN TRANSFORMER	DWG NO.	BRN6044 Seies
		ITEM NO.	

X . INSERTION LOSS TEST CURVE :

BRN6044-0001
25 CH1 S21

(dB) 0
-25

START 50 MHz STOP 1050 MHz

- ① -8.3183 dB / 50 MHz
- ② -6.9458 dB / 150 MHz
- ③ -6.5162 dB / 400 MHz
- ④ -6.9308 dB / 750 MHz
- ⑤ -7.2489 dB / 1000 MHz

BRN6044-0002
25 CH1 S21

(dB) 0
-25

START 2.381 MHz STOP 1050 MHz

- ① -3.1380 dB / 10 MHz
- ② -1.8866 dB / 50 MHz
- ③ -2.1536 dB / 300 MHz
- ④ -4.5075 dB / 1000 MHz
- ⑤ -4.6947 dB / 1050 MHz

BRN6044-0003
25 CH1 S21

(dB) 0
-25

START 8.000 MHz STOP 900 MHz

- ① -1.3816 dB / 8 MHz
- ② -0.8999 dB / 50 MHz
- ③ -1.0204 dB / 300 MHz
- ④ -2.2180 dB / 800 MHz
- ⑤ -2.8778 dB / 900 MHz

BRN6044-0004
25 CH1 S21

(dB) 0
-25

START 6.000 MHz STOP 800 MHz

- ① -0.8196 dB / 6 MHz
- ② -0.5688 dB / 50 MHz
- ③ -0.9145 dB / 300 MHz
- ④ -1.3710 dB / 600 MHz
- ⑤ -2.2616 dB / 800 MHz

AE-001A

Bourns Inductive Solution

SPECIFICATION FOR APPROVAL

REF :

PAGE: 5

PROD. NAME	SMD BALUN TRANSFORMER	DWG NO.	BRN6044 Series
		ITEM NO.	

<p>BRN6044-0005 25 CH1 S21</p> <p style="text-align: center;">START 2.381 MHz STOP 600 MHz</p> <ul style="list-style-type: none"> ① -0.4705 dB / 5 MHz ② -0.3969 dB / 50 MHz ③ -0.6995 dB / 300 MHz ④ -1.0571 dB / 500 MHz ⑤ -1.5255 dB / 600 MHz 	<p>BRN6044-0006 25 CH1 S21</p> <p style="text-align: center;">START 2.381 MHz STOP 1050 MHz</p> <ul style="list-style-type: none"> ① -3.1380 dB / 10 MHz ② -1.8866 dB / 50 MHz ③ -2.1536 dB / 300 MHz ④ -4.5075 dB / 1000 MHz ⑤ -4.6947 dB / 1050 MHz
<p>BRN6044-0007 25 CH1 S21</p> <p style="text-align: center;">START 0.300 MHz STOP 800 MHz</p> <ul style="list-style-type: none"> ① -7.5302 dB / 25 MHz ② -5.8535 dB / 100 MHz ③ -6.6327 dB / 300 MHz ④ -7.7140 dB / 800 MHz 	<p>BRN6044-0008 25 CH1 S21</p> <p style="text-align: center;">START 9.000 MHz STOP 400 MHz</p> <ul style="list-style-type: none"> ① -2.6066 dB / 9 MHz ② -1.8676 dB / 50 MHz ③ -2.0201 dB / 250 MHz ④ -2.3222 dB / 350 MHz ⑤ -2.5982 dB / 400 MHz

AE-001A

Bourns Inductive Solution

SPECIFICATION FOR APPROVAL

REF :

PAGE: 6

PROD. NAME SMD BALUN TRANSFORMER	DWG NO. BRN6044 Series	
	ITEM NO.	

<p>BRN6044-0009 25 CH1 S21</p> <p>(dB) 0 -25</p> <p>START 2.381 MHz STOP 500 MHz</p> <ul style="list-style-type: none"> ① -1.9681 dB / 3.5 MHz ② -1.3742 dB / 50 MHz ③ -1.6774 dB / 300 MHz ④ -2.1016 dB / 470 MHz ⑤ -2.3843 dB / 500 MHz 	<p>BRN6044-0010 25 CH1 S21</p> <p>(dB) 0 -25</p> <p>START 2.381 MHz STOP 450 MHz</p> <ul style="list-style-type: none"> ① -0.8878 dB / 2.381 MHz ② -0.7163 dB / 50 MHz ③ -1.2644 dB / 300 MHz ④ -1.9968 dB / 400 MHz ⑤ -3.0278 dB / 450 MHz
<p>BRN6044-0011 25 CH1 S21</p> <p>(dB) 0 -25</p> <p>START 1.000 MHz STOP 350 MHz</p> <ul style="list-style-type: none"> ① -0.5992 dB / 1.5 MHz ② -0.7765 dB / 50 MHz ③ -1.4662 dB / 150 MHz ④ -2.3604 dB / 300 MHz ⑤ -2.3604 dB / 300 MHz 	<p>BRN6044-0012 25 CH2 S21</p> <p>(dB) 0 -25</p> <p>START 2.381 MHz STOP 700 MHz</p> <p>"Δ" : IN-OUT 1 " " : IN-OUT 2</p> <ul style="list-style-type: none"> ① -0.9926 dB / 6 MHz ① -12.378 dB / 6 MHz ② -0.7059 dB / 50 MHz ② -12.303 dB / 50 MHz ③ -0.7940 dB / 300 MHz ③ -12.505 dB / 300 MHz ④ -1.1147 dB / 600 MHz ④ -12.907 dB / 600 MHz ⑤ -1.2524 dB / 700 MHz ⑤ -13.049 dB / 700 MHz

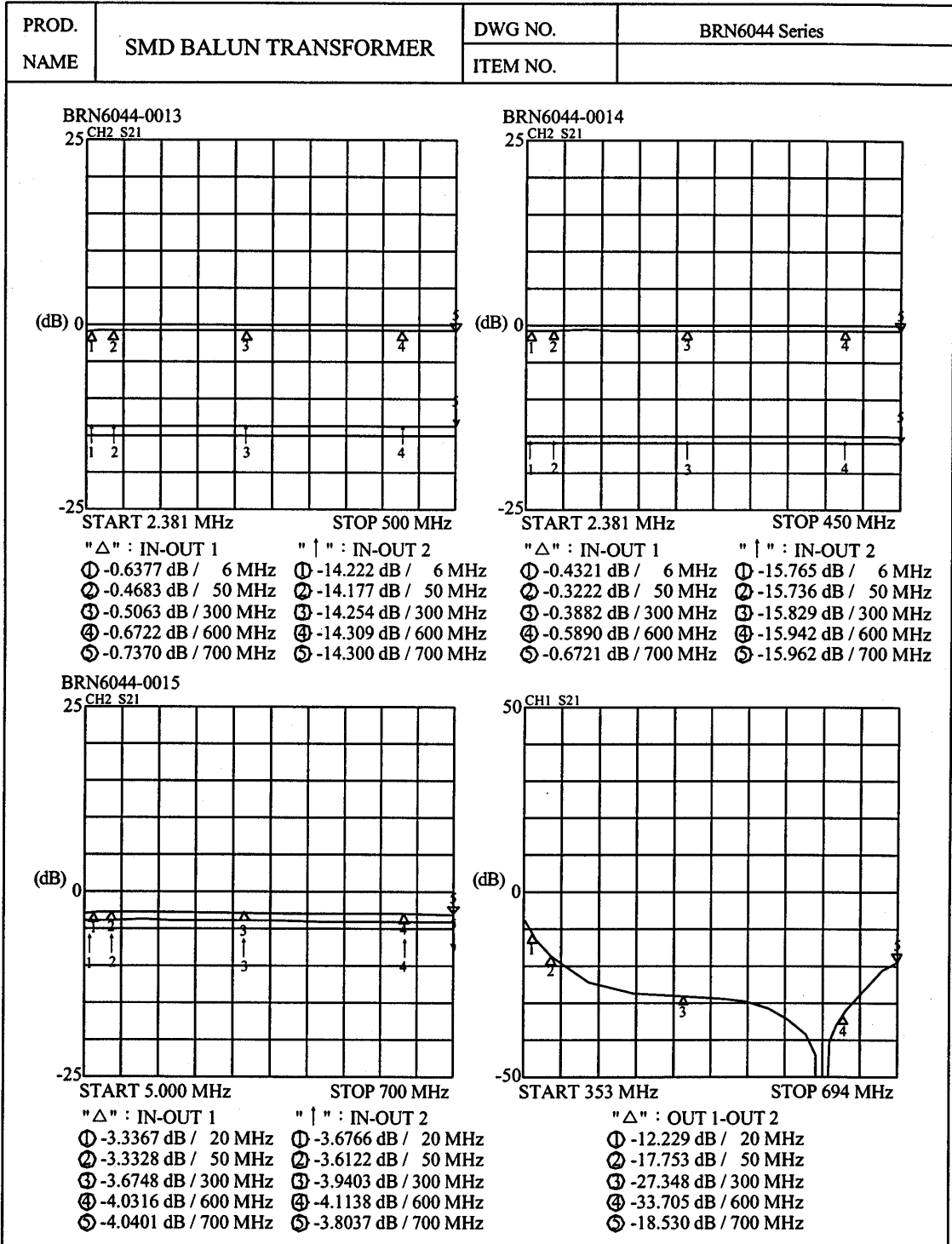
AE-001A

Bourns Inductive Solution

SPECIFICATION FOR APPROVAL

REF :

PAGE: 7



AE-001A

Bourns Inductive Solution