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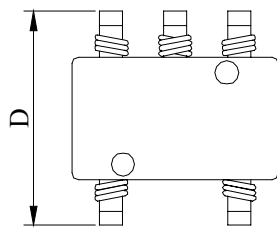
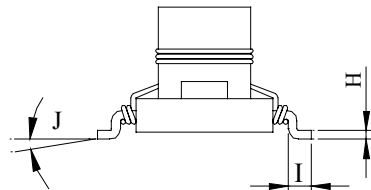
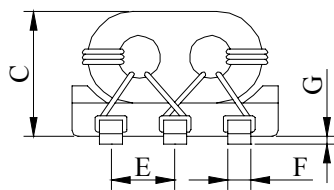
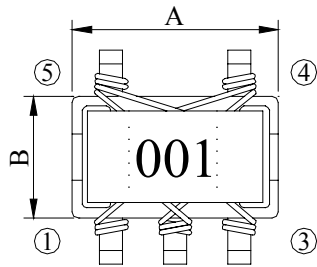
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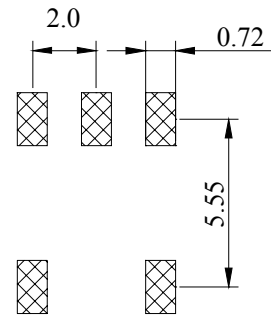
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|---------------|-----------------------|----------|----------------|
| PROD. NAME | SMD BALUN TRANSFORMER | DWG NO. | BRN6044 Series |
| | | ITEM NO. | |

I . MECHANICAL DIMENSIONS :



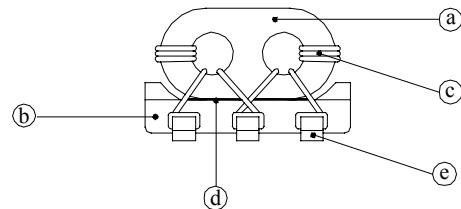
- A : 6.20±0.20 m/m
- B : 4.00±0.20 m/m
- C : 4.40 max. m/m
- D : 6.40±0.30 m/m
- E : 2.00 typ. m/m
- F : 0.60±0.05 m/m
- G : 0.20±0.10 m/m
- H : 0.30±0.10 m/m
- I : 0.70±0.05 m/m
- J : 0°~ 8° m/m



(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



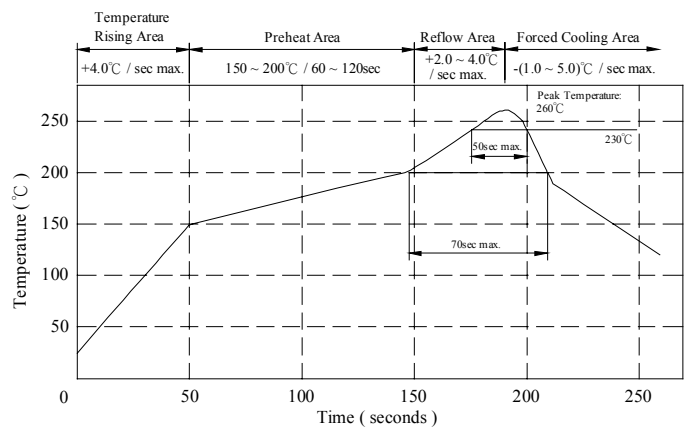
III . FEATURES :

- 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.



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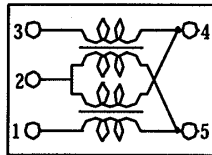
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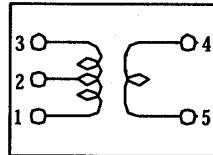
V . ELECTRICAL CHARACTERISTICS :

| 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 |

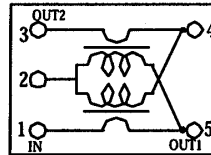
VI . SCHEMATIC DIAGRAM :



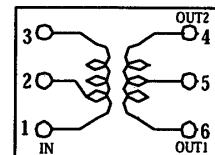
Double balanced mixer
Fig.1



Transformer
Fig.2



Directional coupler
Fig.3



Distributor
Fig.4

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

VII . PACKAGING INFORMATION :
(1) CONFIGURATION

EMBOSED CARRIER

*CARRIER TAPE WIDTH : D

USER DIRECTION OF FEED

(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 |

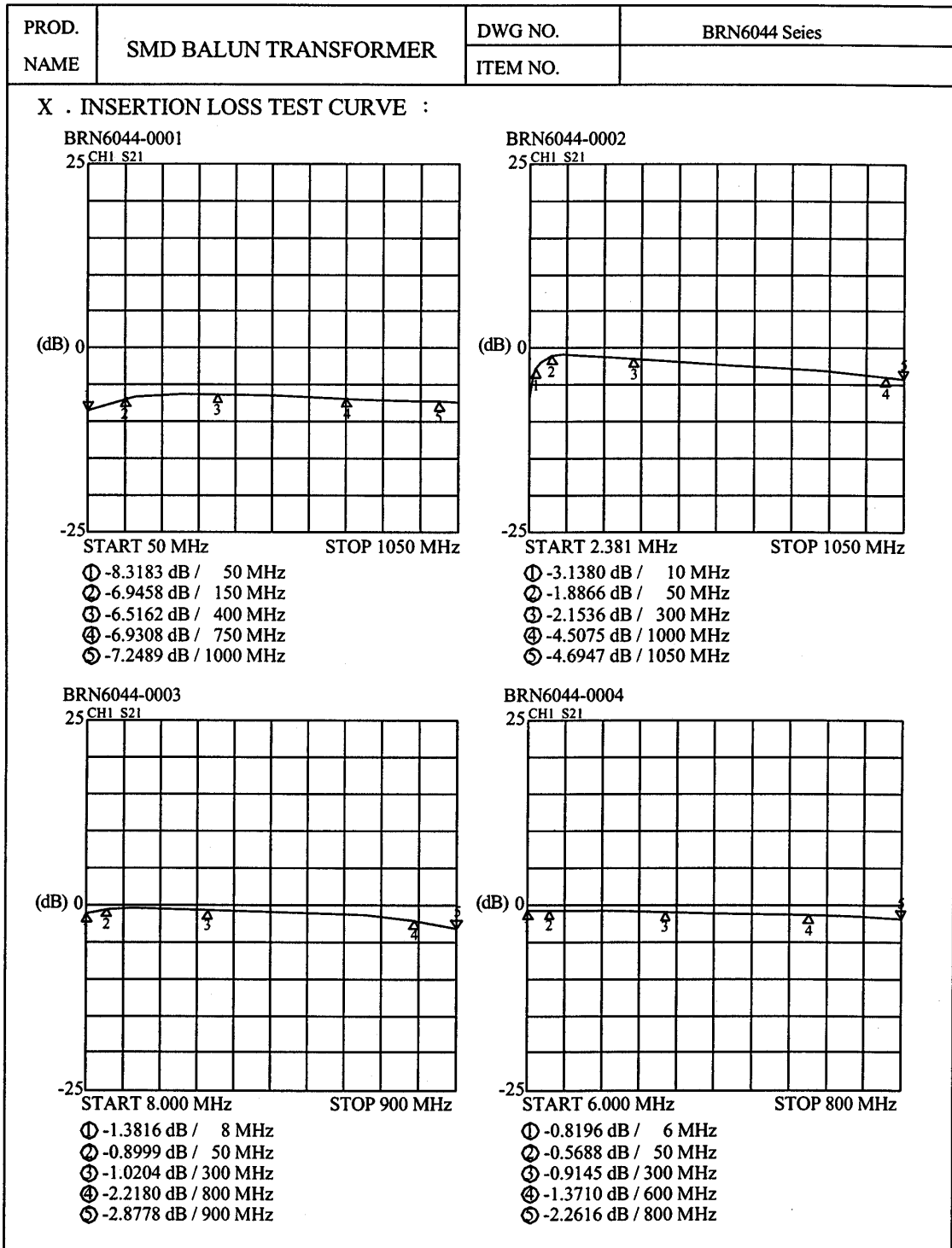
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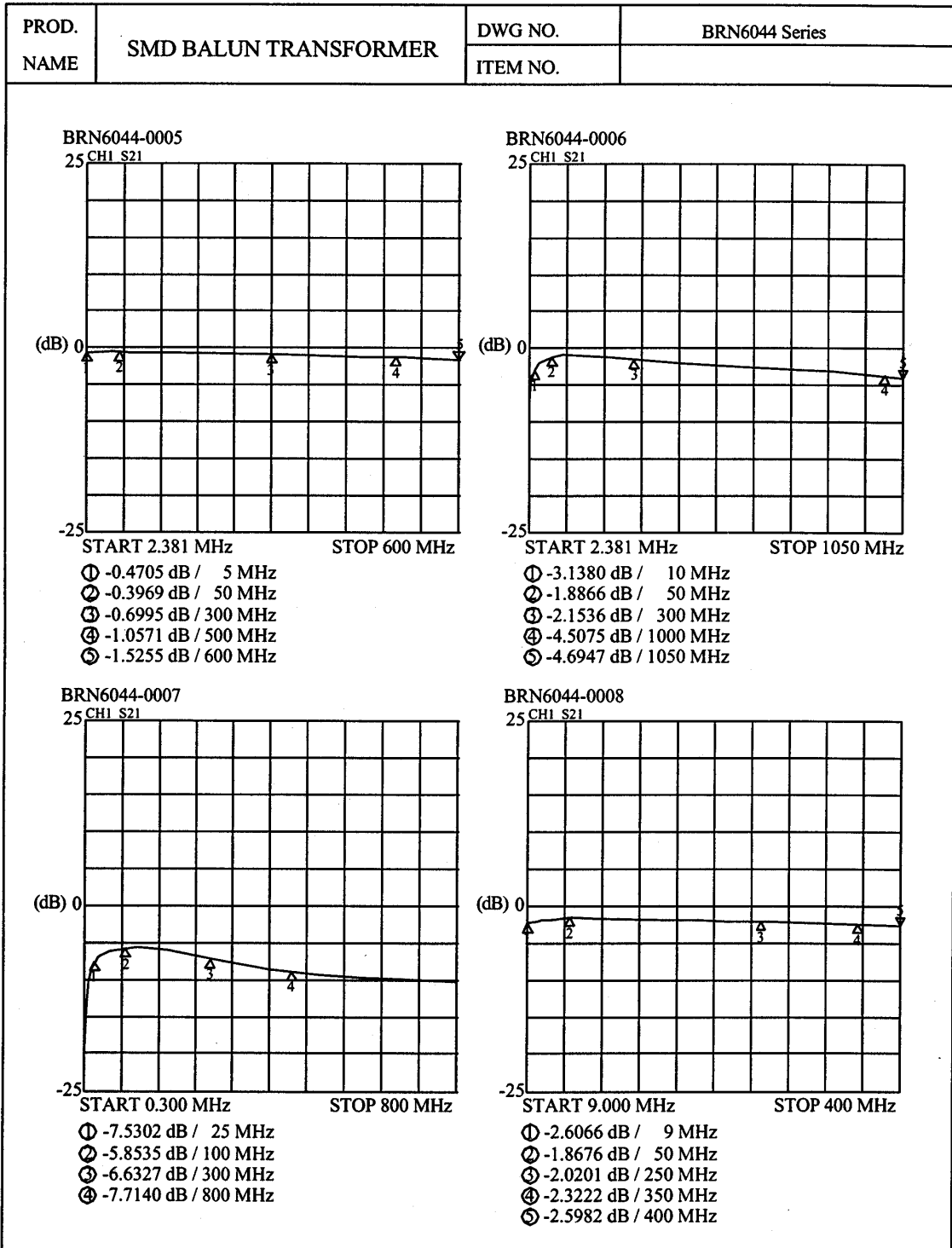
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| PROD. NAME | SMD BALUN TRANSFORMER | DWG NO. ITEM NO. | BRN6044 Series |
|------------|-----------------------|---------------------|----------------|

| | |
|--|---|
| <p>BRN6044-0009 25 CH1 S21</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>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>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>START 2.381 MHz STOP 700 MHz</p> <p>"△" : IN-OUT 1 "↑" : IN-OUT 2</p> <ul style="list-style-type: none"> <li style="width: 50%;">① -0.9926 dB / 6 MHz <li style="width: 50%;">② -12.378 dB / 6 MHz <li style="width: 50%;">③ -0.7059 dB / 50 MHz <li style="width: 50%;">④ -12.303 dB / 50 MHz <li style="width: 50%;">⑤ -0.7940 dB / 300 MHz <li style="width: 50%;">⑥ -12.505 dB / 300 MHz <li style="width: 50%;">⑦ -1.1147 dB / 600 MHz <li style="width: 50%;">⑧ -12.907 dB / 600 MHz <li style="width: 50%;">⑨ -1.2524 dB / 700 MHz <li style="width: 50%;">⑩ -13.049 dB / 700 MHz |

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

| | | | | | | | | | | | | | | | | | | | | | |
|--|------------------------|-----------------------|-----------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|--|-----------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| <p>BRN6044-0013 25 CH2 S21</p> <p>(dB) 0 -25</p> <p>START 2.381 MHz STOP 500 MHz</p> <p>"Δ" : IN-OUT 1 "↑" : IN-OUT 2</p> <table style="width: 100%;"> <tr> <td>① -0.6377 dB / 6 MHz</td> <td>① -14.222 dB / 6 MHz</td> </tr> <tr> <td>② -0.4683 dB / 50 MHz</td> <td>② -14.177 dB / 50 MHz</td> </tr> <tr> <td>③ -0.5063 dB / 300 MHz</td> <td>③ -14.254 dB / 300 MHz</td> </tr> <tr> <td>④ -0.6722 dB / 600 MHz</td> <td>④ -14.309 dB / 600 MHz</td> </tr> <tr> <td>⑤ -0.7370 dB / 700 MHz</td> <td>⑤ -14.300 dB / 700 MHz</td> </tr> </table> | ① -0.6377 dB / 6 MHz | ① -14.222 dB / 6 MHz | ② -0.4683 dB / 50 MHz | ② -14.177 dB / 50 MHz | ③ -0.5063 dB / 300 MHz | ③ -14.254 dB / 300 MHz | ④ -0.6722 dB / 600 MHz | ④ -14.309 dB / 600 MHz | ⑤ -0.7370 dB / 700 MHz | ⑤ -14.300 dB / 700 MHz | <p>BRN6044-0014 25 CH2 S21</p> <p>(dB) 0 -25</p> <p>START 2.381 MHz STOP 450 MHz</p> <p>"Δ" : IN-OUT 1 "↑" : IN-OUT 2</p> <table style="width: 100%;"> <tr> <td>① -0.4321 dB / 6 MHz</td> <td>① -15.765 dB / 6 MHz</td> </tr> <tr> <td>② -0.3222 dB / 50 MHz</td> <td>② -15.736 dB / 50 MHz</td> </tr> <tr> <td>③ -0.3882 dB / 300 MHz</td> <td>③ -15.829 dB / 300 MHz</td> </tr> <tr> <td>④ -0.5890 dB / 600 MHz</td> <td>④ -15.942 dB / 600 MHz</td> </tr> <tr> <td>⑤ -0.6721 dB / 700 MHz</td> <td>⑤ -15.962 dB / 700 MHz</td> </tr> </table> | ① -0.4321 dB / 6 MHz | ① -15.765 dB / 6 MHz | ② -0.3222 dB / 50 MHz | ② -15.736 dB / 50 MHz | ③ -0.3882 dB / 300 MHz | ③ -15.829 dB / 300 MHz | ④ -0.5890 dB / 600 MHz | ④ -15.942 dB / 600 MHz | ⑤ -0.6721 dB / 700 MHz | ⑤ -15.962 dB / 700 MHz |
| ① -0.6377 dB / 6 MHz | ① -14.222 dB / 6 MHz | | | | | | | | | | | | | | | | | | | | |
| ② -0.4683 dB / 50 MHz | ② -14.177 dB / 50 MHz | | | | | | | | | | | | | | | | | | | | |
| ③ -0.5063 dB / 300 MHz | ③ -14.254 dB / 300 MHz | | | | | | | | | | | | | | | | | | | | |
| ④ -0.6722 dB / 600 MHz | ④ -14.309 dB / 600 MHz | | | | | | | | | | | | | | | | | | | | |
| ⑤ -0.7370 dB / 700 MHz | ⑤ -14.300 dB / 700 MHz | | | | | | | | | | | | | | | | | | | | |
| ① -0.4321 dB / 6 MHz | ① -15.765 dB / 6 MHz | | | | | | | | | | | | | | | | | | | | |
| ② -0.3222 dB / 50 MHz | ② -15.736 dB / 50 MHz | | | | | | | | | | | | | | | | | | | | |
| ③ -0.3882 dB / 300 MHz | ③ -15.829 dB / 300 MHz | | | | | | | | | | | | | | | | | | | | |
| ④ -0.5890 dB / 600 MHz | ④ -15.942 dB / 600 MHz | | | | | | | | | | | | | | | | | | | | |
| ⑤ -0.6721 dB / 700 MHz | ⑤ -15.962 dB / 700 MHz | | | | | | | | | | | | | | | | | | | | |
| <p>BRN6044-0015 25 CH2 S21</p> <p>(dB) 0 -25</p> <p>START 5.000 MHz STOP 700 MHz</p> <p>"Δ" : IN-OUT 1 "↑" : IN-OUT 2</p> <table style="width: 100%;"> <tr> <td>① -3.3367 dB / 20 MHz</td> <td>① -3.6766 dB / 20 MHz</td> </tr> <tr> <td>② -3.3328 dB / 50 MHz</td> <td>② -3.6122 dB / 50 MHz</td> </tr> <tr> <td>③ -3.6748 dB / 300 MHz</td> <td>③ -3.9403 dB / 300 MHz</td> </tr> <tr> <td>④ -4.0316 dB / 600 MHz</td> <td>④ -4.1138 dB / 600 MHz</td> </tr> <tr> <td>⑤ -4.0401 dB / 700 MHz</td> <td>⑤ -3.8037 dB / 700 MHz</td> </tr> </table> | ① -3.3367 dB / 20 MHz | ① -3.6766 dB / 20 MHz | ② -3.3328 dB / 50 MHz | ② -3.6122 dB / 50 MHz | ③ -3.6748 dB / 300 MHz | ③ -3.9403 dB / 300 MHz | ④ -4.0316 dB / 600 MHz | ④ -4.1138 dB / 600 MHz | ⑤ -4.0401 dB / 700 MHz | ⑤ -3.8037 dB / 700 MHz | <p>50 CH1 S21</p> <p>(dB) 0 -50</p> <p>START 353 MHz STOP 694 MHz</p> <p>"Δ" : OUT 1-OUT 2</p> <table style="width: 100%;"> <tr> <td>① -12.229 dB / 20 MHz</td> </tr> <tr> <td>② -17.753 dB / 50 MHz</td> </tr> <tr> <td>③ -27.348 dB / 300 MHz</td> </tr> <tr> <td>④ -33.705 dB / 600 MHz</td> </tr> <tr> <td>⑤ -18.530 dB / 700 MHz</td> </tr> </table> | ① -12.229 dB / 20 MHz | ② -17.753 dB / 50 MHz | ③ -27.348 dB / 300 MHz | ④ -33.705 dB / 600 MHz | ⑤ -18.530 dB / 700 MHz | | | | | |
| ① -3.3367 dB / 20 MHz | ① -3.6766 dB / 20 MHz | | | | | | | | | | | | | | | | | | | | |
| ② -3.3328 dB / 50 MHz | ② -3.6122 dB / 50 MHz | | | | | | | | | | | | | | | | | | | | |
| ③ -3.6748 dB / 300 MHz | ③ -3.9403 dB / 300 MHz | | | | | | | | | | | | | | | | | | | | |
| ④ -4.0316 dB / 600 MHz | ④ -4.1138 dB / 600 MHz | | | | | | | | | | | | | | | | | | | | |
| ⑤ -4.0401 dB / 700 MHz | ⑤ -3.8037 dB / 700 MHz | | | | | | | | | | | | | | | | | | | | |
| ① -12.229 dB / 20 MHz | | | | | | | | | | | | | | | | | | | | | |
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