

MDR 641C Bandpass 2.45GHz

Multilayer Dielectric Series

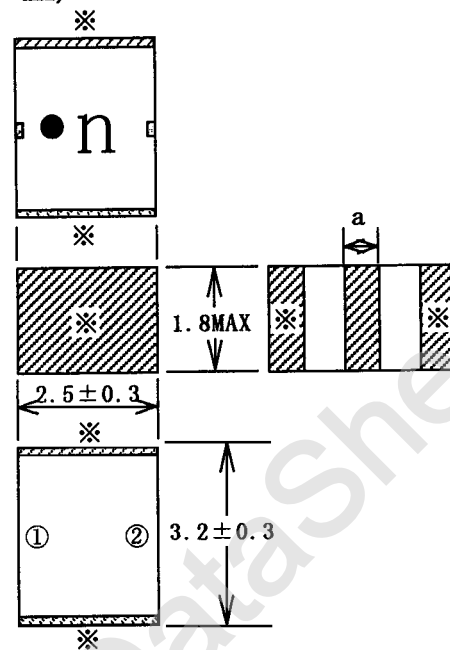
Product Features

- Small size
- Low loss and high attenuation
- SMD and reflow soldering is available

Applications

- Bluetooth / ISM 2.4

Dimension (Unit : mm)



Terminal	
①	Input
②	Output
※	GND

$$a = 0.6 \pm 0.2$$

Electrical Characteristics

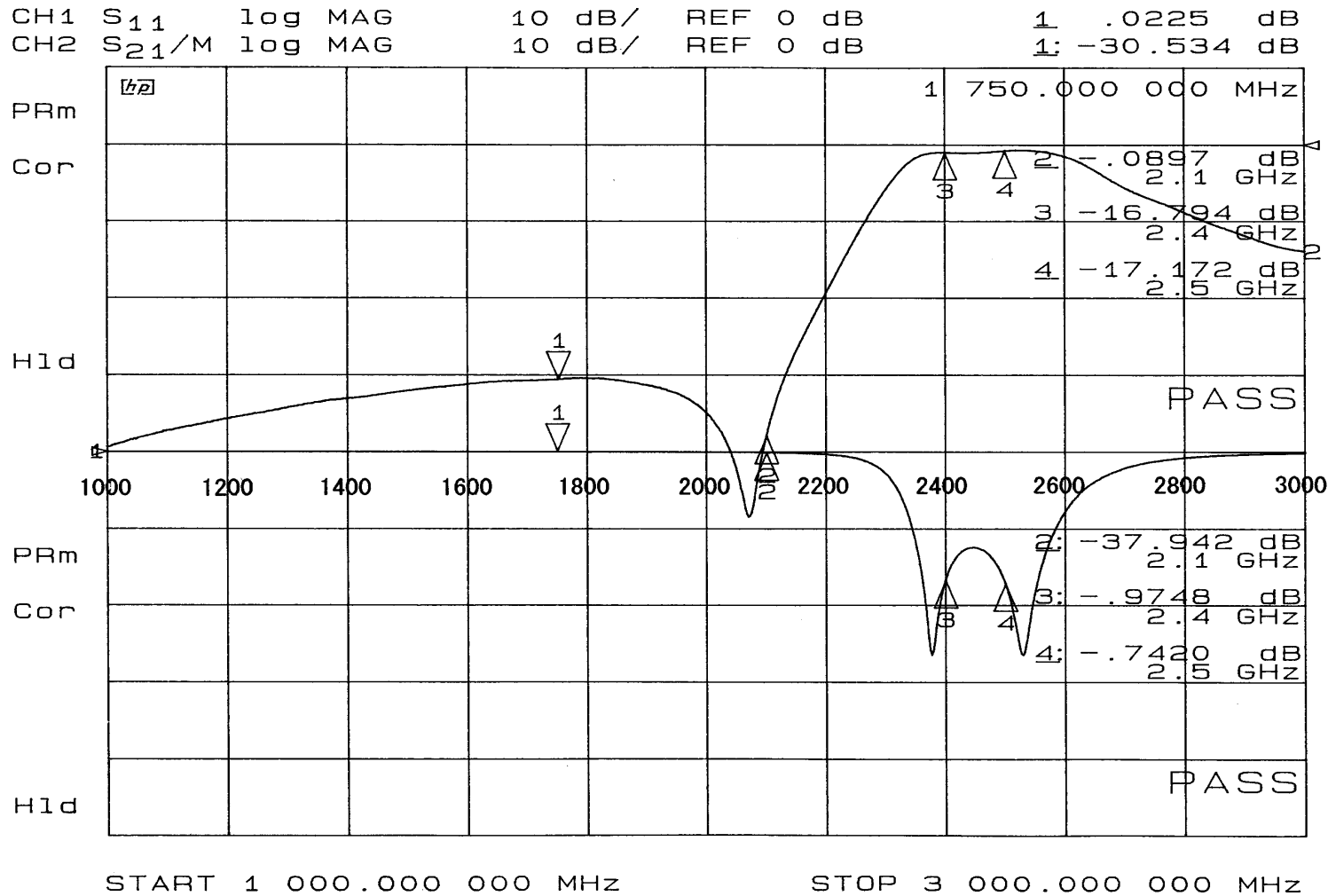
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|-------------------|---|
| 1. Zin & Zout | : 50 Ω Nominal |
| 2. fc | : 2450MHz Nominal |
| 3. Pass Band | : 2400~2500MHz |
| 4. Insertion Loss | : 1.5 dB MAX. (2400~2500MHz :at 25°C) |
| | : 2.0 dB MAX. (2400~2500MHz :-20~+60°C) |
| 5. Ripple | : 0.8 dB MAX. (2400~2500MHz) |
| 6. V.S.W.R | : 2.0 MAX. (2400~2500MHz) |
| 7. Attenuation | : 25 dB MIN. (at 1750MHz) |
| | : 25 dB MIN. (at 2100MHz) |
| | : 22 dB MIN. (4800~5000MHz) |

Minimum Ordering Quantity : 2,000pcs(per reel, per bag)



MULTILAYERED FILTERS

MDR641C



TYPE
MDR641C

CH1 (S₁₁)
MARK
1 : 1750 MHz
2 : 2100 MHz
3 : 2400 MHz
4 : 2500 MHz

CH2 (S₂₁)
MARK
1 : 1750 MHz
2 : 2100 MHz
3 : 2400 MHz
4 : 2500 MHz

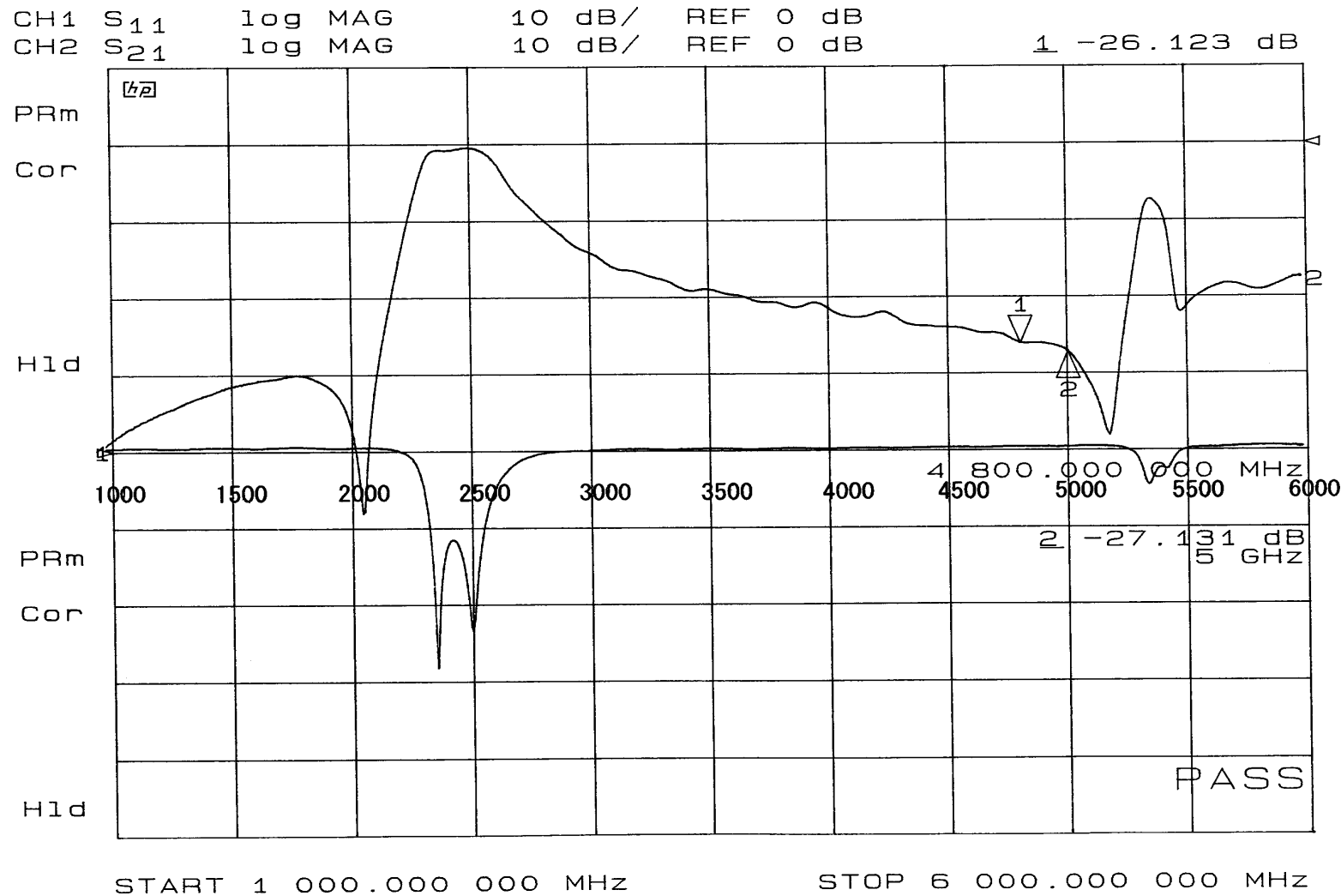
Measurement
Instrument
HP8753D
NETWORK
ANALYZER

Date
2000/11/16
SOSHIN
ELECTRIC
CO., LTD.



MULTILAYERED FILTERS

MDR641C



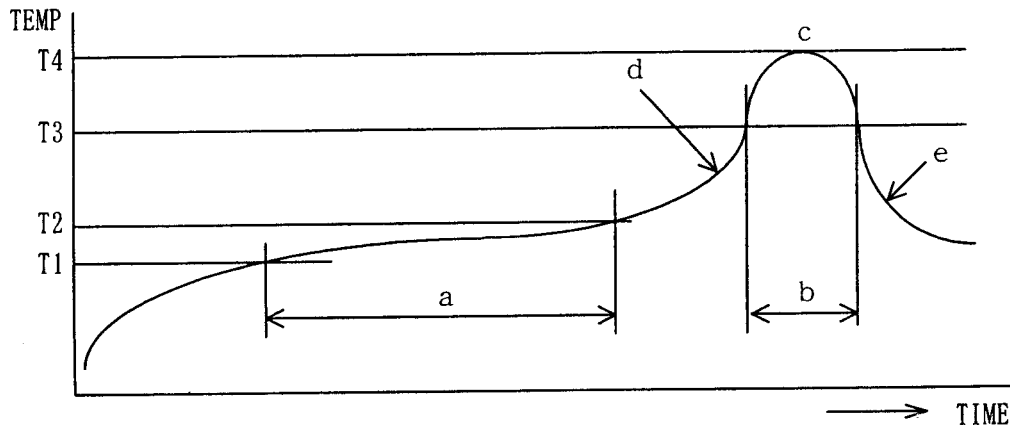
TYPE
MDR641C

MARK
1 : 4800 MHz
2 : 5000 MHz

Measurement
Instrument
HP8753D
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Reflow-soldering conditions (For reference)



- (1) High temperature reflow-soldering conditions (No more than 2 flows allowed)
 - T1 : $130 \pm 10^{\circ}\text{C}$, T2 : $150 \pm 10^{\circ}\text{C}$, T3 : 200°C , T4 : 240°C
 - a : Preheating 40 to 120 seconds
 - b : Heating 50 seconds
 - c : Peak temperature 240°C , max.
 - d : Temperature rising slope $10^{\circ}\text{C}/1 \text{ second}$, max.
 - e : Temperature falling slope $8^{\circ}\text{C}/1 \text{ second}$, max.

Dip-soldering conditions (For reference)

- (1) Preheating : 100 to 150°C
- (2) Solder bath temperature : $260 \pm 5^{\circ}\text{C}$
- (3) Dipping time : 5 ± 1 seconds

Cleaning conditions

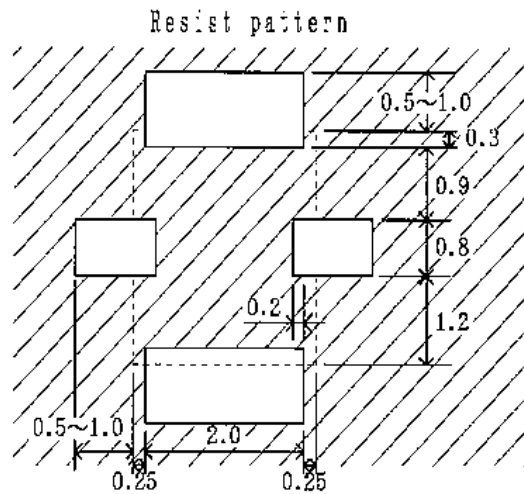
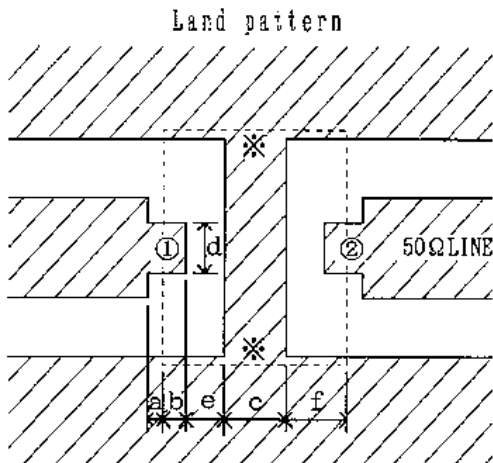
- (1) Cleaning agent : Isopropyl alcohol
- (2) Dip cleaning : 30 minutes, max., at 40°C
- (3) Vapor cleaning : 30 minutes, max.
- (4) Ultrasonic cleaning : 1 minutes, max, with a maximum power of 10w

Recommended Repair Soldering Conditions

- (1) Preheating Conditions

The temperature difference between soldering iron and device surface must be under 100°C .
- (2) Recommended Condition of Soldering Iron
 - ① Power : 20W MAX.
 - ② Chip temperature : 270°C MAX.
 - ③ Dimension of iron chip : $\sim 1 \phi$
 - ④ Soldering time : 3 Seconds MAX.

Recommendation Pattern (Unit : mm)



Terminal	
①	Input
②	Output
※	GND

a=0.2
 b=0.3
 c=1.0
 d=0.6
 e=0.45
 f=0.75
 (Unit : mm)

Example : t=1.0mm
 Glass-epoxy board