

SMD Common Mode Balun Transformers

SMD Common Mode Balun Transformers For USB - TCB4F Series

Surface Mount Common Mode Balun Transformer (TCB4F) For USB

► Preview

Token Electronics has introduced SMD common mode transformers (balun transformers) in 3.8 x 4.4 mm compact size, which are used to convert between unbalanced-balanced signals in the antenna inputs of tuner circuits for terrestrial digital broadcast compatible compact devices. Up to now balun transformers have been made by winding wire around a spectacle-shaped ferrite core, and are widely used in electronic devices such as TVs and desktop PCs.

Token SMD choke coils common mode TCB4F series are primarily designed for choking power lines and conform to the RoHS compliant and Lead-free. SMD TCB4F can be customized designs and tighter tolerances available on request.

Windings use paired or and triple wires for high uniformity. Base pins are end processed to allow direct mounting on PCB. Ideal for use in double balanced mixers, and as broad band transformers, transistors and for impedance conversion. Application of SMD choke coils specific designs also available including different inductance values and Q specifications adjusted to frequency requirements.

Token is equipped to design and produce custom components to meet many design and reliability demands. Custom parts are available on request. Token will also produce devices outside these specifications to meet specific customer requirements, please contact our sales for more information.

Features :

- Pair and triple wire coil for high stability and high balance.
- Available in tape & reel for automatic surface mounting..

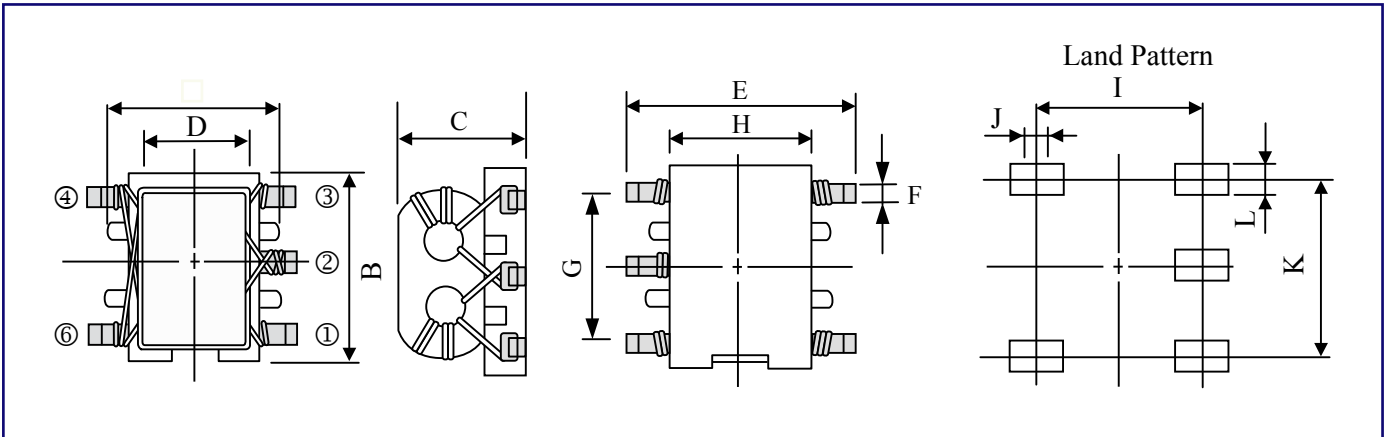
Applications :

- Double Balance Mixers.
- Broad-Band Transformers.
- Impedance Transformers.
- Common Mode Filter, Balun Transformers.



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Configurations & Dimensions



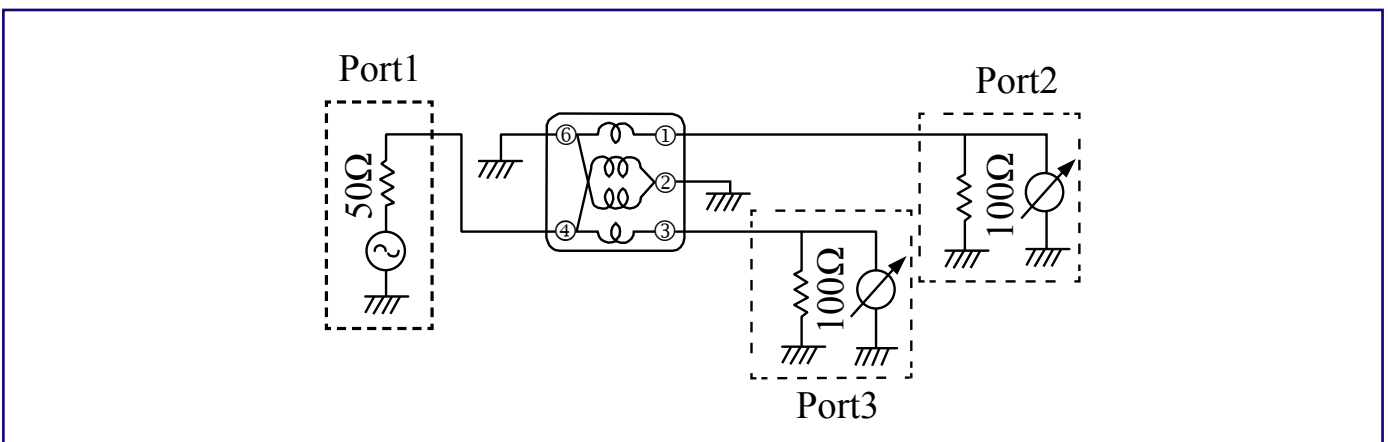
| Type | A | B(max) | C(max) | D | E(max) | F | G | H | I | J | K | L |
|-------|-----|--------|--------|-----|--------|------|-----|-----|-----|-----|-----|-----|
| TCB4F | 3.8 | 4.4 | 3.2 | 2.0 | 5.5 | 0.45 | 3.0 | 2.7 | 4.4 | 1.3 | 3.0 | 1.0 |

Note: Design as Customer's Requested Specifications.

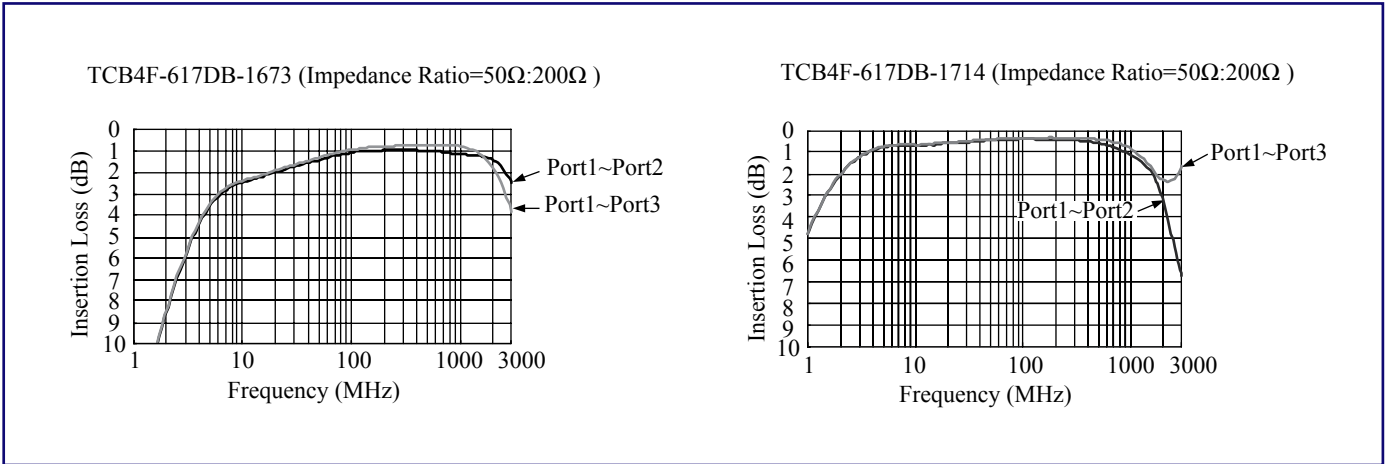
(TCB4F - 617DB) Electrical Characteristics A

| Part Number | Winding Turns 1-6=2-4=2-6=3-4 | μiac |
|-------------------|----------------------------------|-----------------|
| TCB4F - 617DB1673 | 2 1/2 T | 300 |
| TCB4F - 617DB1674 | 3 1/2 T | 300 |
| TCB4F - 617DB1675 | 4 1/2 T | 300 |
| TCB4F - 617DB1714 | 5 1/2 T | 300 |

(TCB4F - 617DB) Test Circuit A



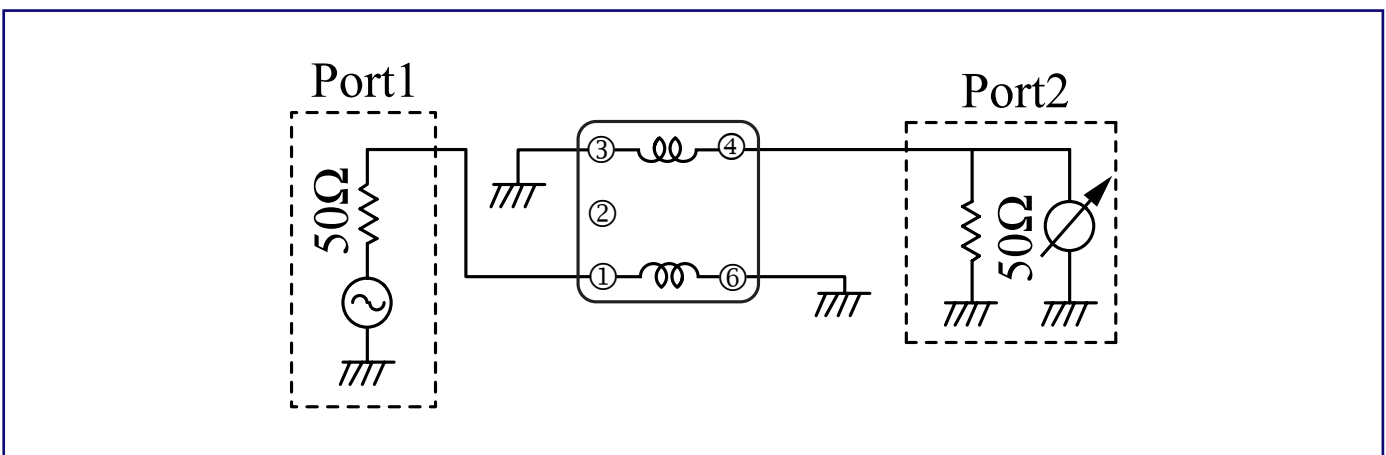
▶ (TCB4F - 617DB) Typical Characteristics A



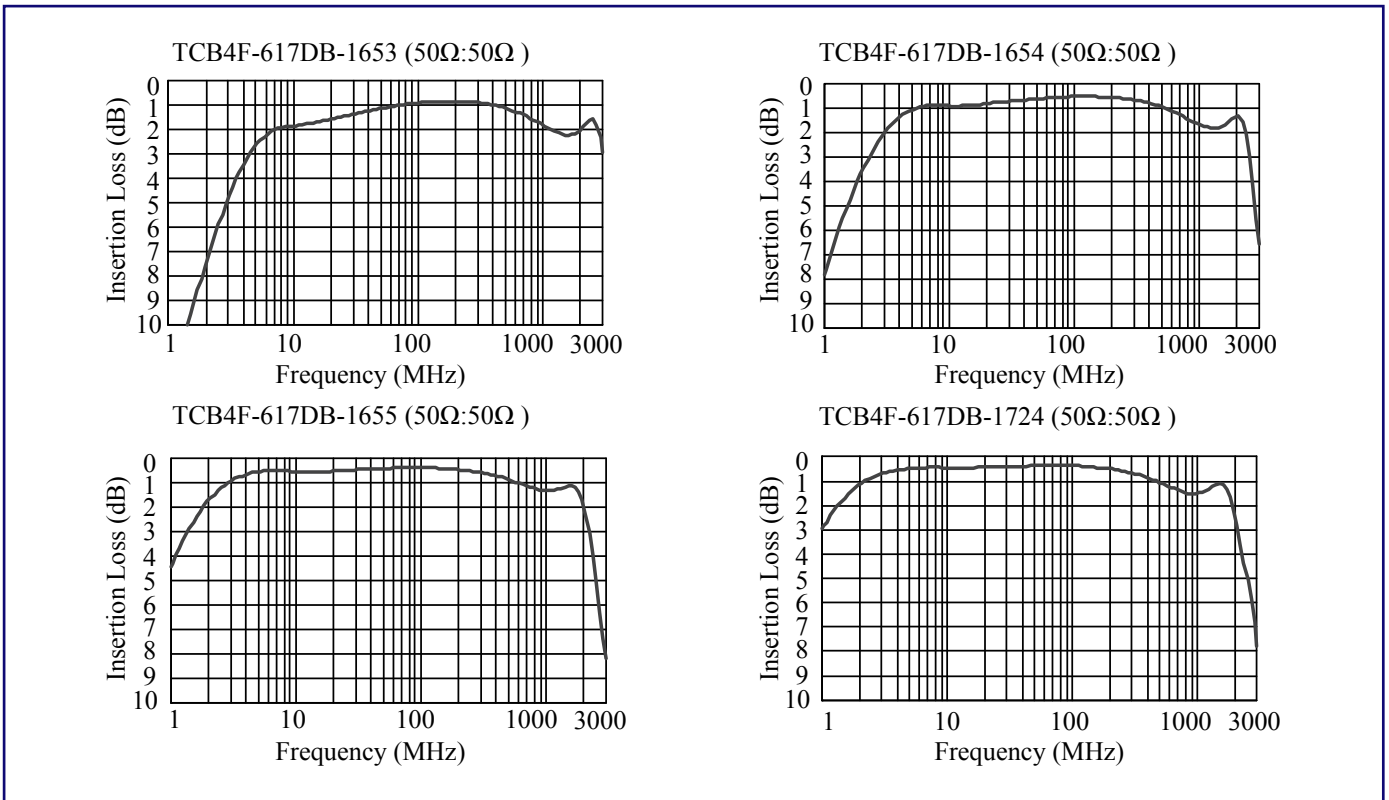
▶ (TCB4F - 617DB) Electrical Characteristics B

| Part Number | Winding Turns | μiac |
|-------------------|---------------|------|
| TCB4F - 617DB1653 | 2 1/2 T | 300 |
| TCB4F - 617DB1654 | 3 1/2 T | 300 |
| TCB4F - 617DB1655 | 4 1/2 T | 300 |
| TCB4F - 617DB1724 | 5 1/2 T | 300 |

▶ (TCB4F - 617DB) Test Circuit B



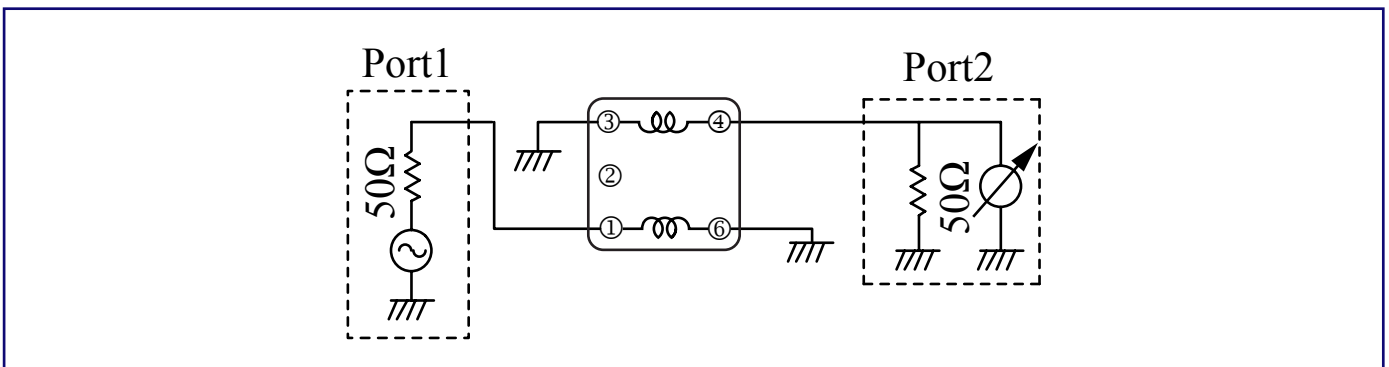
▶ (TCB4F - 617DB) Typical Characteristics B



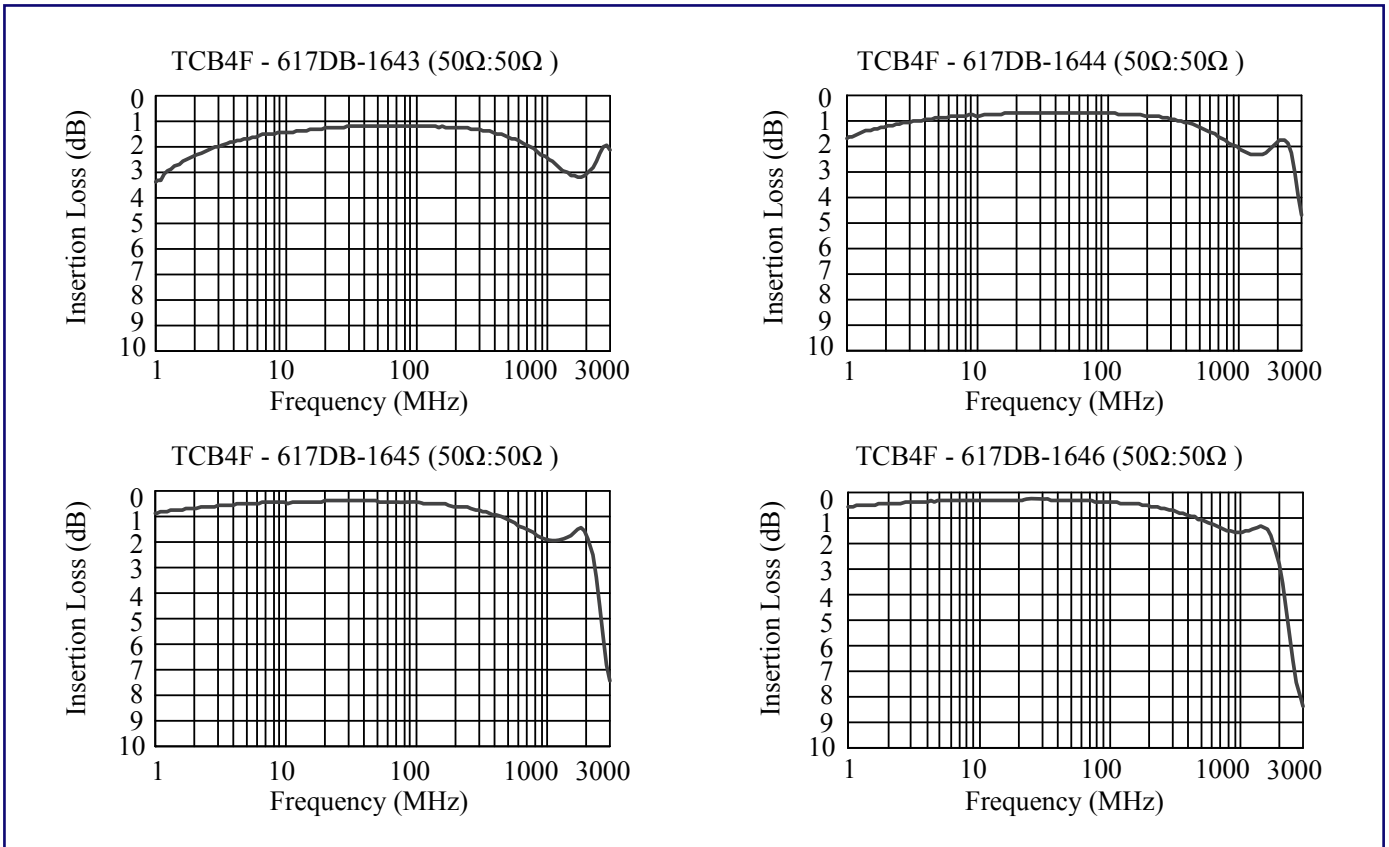
▶ (TCB4F - 617DB) Electrical Characteristics C

| Part Number | Winding Turns | μiac |
|-------------------|---------------|------|
| TCB4F - 617DB1643 | 2 1/2 T | 1500 |
| TCB4F - 617DB1644 | 3 1/2 T | 1500 |
| TCB4F - 617DB1645 | 4 1/2 T | 1500 |
| TCB4F - 617DB1646 | 5 1/2 T | 1500 |

▶ (TCB4F - 617DB) Electrical Characteristics C



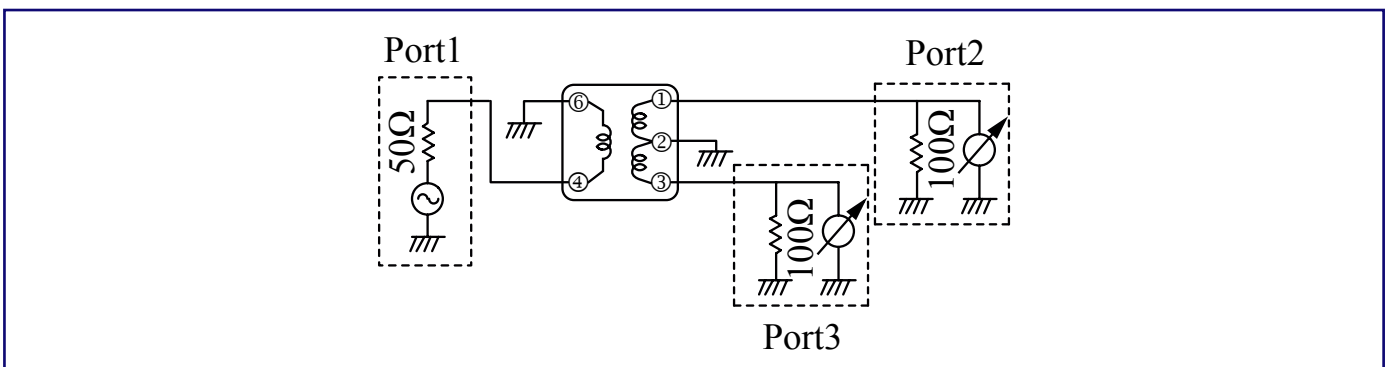
▶ (TCB4F - 617DB) Typical Characteristics C



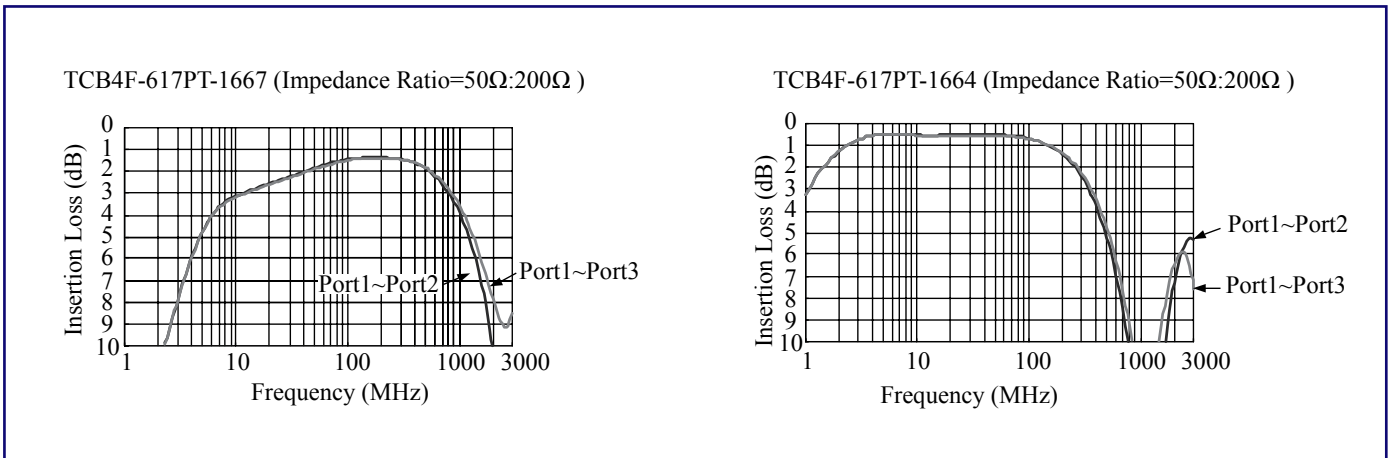
▶ (TCB4F - 617PT) Electrical Characteristics

| Part Number | Winding Turns 1-2=2-3=4-6 | μiac |
|-------------------|------------------------------|------|
| TCB4F - 617PT1667 | 2T | 300 |
| TCB4F - 617PT1669 | 3T | 300 |
| TCB4F - 617PT1699 | 4T | 300 |
| TCB4F - 617PT1664 | 5T | 300 |

▶ (TCB4F - 617PT) Test Circuit



▶ (TCB4F - 617PT) Typical Characteristics



▶ How to Order

TCB4F

❶

617DB1673

❷

❶ Part Number: TCB4F

❷ Type

| Code | Type |
|-----------|--------------------|
| 617DB1673 | Frequency mixer |
| 617PT1667 | Frequency mixer |
| 617DB1653 | Balun Transformers |
| 617DB1643 | Balun Transformers |

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