

Common mode Noise Filters

Type: **EXC14CT**



Features

- Small and thin (L 0.85 mm×W 0.65 mm×H 0.45 mm)
- High attenuation at common-mode for noise suppression of harmonic signal components and cellular frequency
- High cut-off frequency and capability of coping with high-speed signals (USB and HDMI)
- Strong multilayer/sintered structure, excellent reflow resistance and high mounting reliability
- Lead, halogen and antimony-free
- RoHS compliant

Recommended Applications

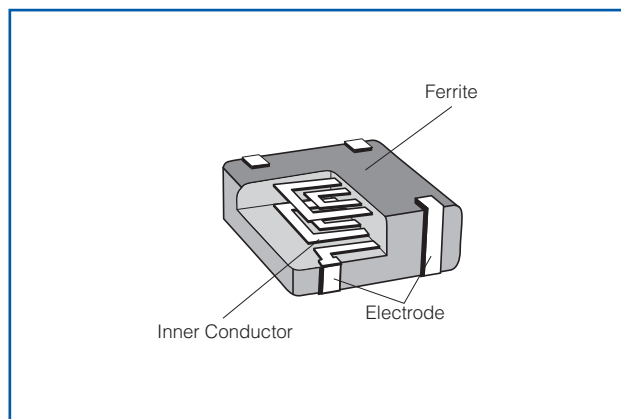
- Smartphones, Tablet PCs and DSC
- Noise suppression of high-speed differential data lines such as MIPI, USB and LVDS

Explanation of Part Numbers

| | | | | | | | | | | | |
|--------------|---|---|------|---------------------|------|-----------------|-------------------|---|----|------|--------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| E | X | C | 1 | 4 | C | T | 9 | 0 | 0 | U | |
| Product Code | | | Size | Number of Terminals | Type | Characteristics | Nominal Impedance | | | Form | Suffix |

| | | | | | | | | | | |
|--------------|------|---------------------------------------|-------------|---|--------------|---|-----------------------|---|------|--|
| Noise Filter | Code | Dimensions(mm) | 4 Terminals | C | Coupled type | T | High attenuation type | The first two digits are significant figure of impedance value, and the third one denotes the number of zeros following | Code | Packing |
| | 1 | 0.85 × 0.65 × 0.45 (L) × (W) × (H) | | | | | | | U | Embossed Carrier Taping 2 mm pitch, 10,000 pcs. |

Construction



Dimensions in mm (not to scale)

| Part No. (inch size) | Dimensions (mm) | | | | | | Mass (Weight) [mg/pc.] |
|-------------------------|-----------------|-----------|-----------|-----------|-----------|-----------|------------------------------|
| | A | B | C | D | E | F | |
| EXC14CT (0302) | 0.65±0.05 | 0.85±0.05 | 0.45±0.05 | 0.10 min. | 0.50±0.10 | 0.27±0.10 | 1.0 |

Circuit Configuration (No Polarity)

- The pin numbers shown here are for reference purposes only. Confirm the actual pin number arrangement with the exchanged specification documents.

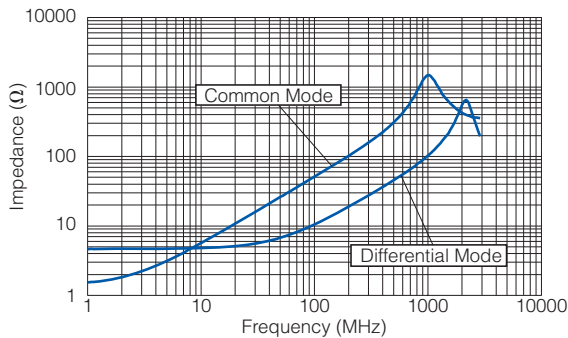
Ratings

| Part Number | Impedance (Ω) at 100 MHz | | Rated Voltage (V DC) | Rated Current (mA DC) | DC Resistance (Ω)max. |
|-------------|-----------------------------------|-------------------|----------------------|-----------------------|--------------------------------|
| | Common Mode | Differential Mode | | | |
| EXC14CT500U | 50 Ω \pm 25 % | 17 Ω max. | 5 | 100 | 2.3 Ω \pm 30 % |
| EXC14CT900U | 90 Ω \pm 20 % | 20 Ω max. | 5 | 100 | 3.3 Ω \pm 30 % |

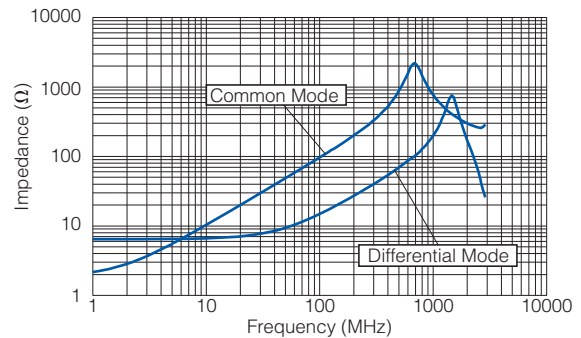
- Category Temperature Range $-40\text{ }^{\circ}\text{C}$ to $+85\text{ }^{\circ}\text{C}$

Impedance Characteristics (Typical)

● EXC14CT500U

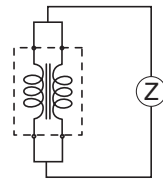


● EXC14CT900U

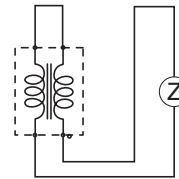


● Measurement Circuit

(A) Common Mode

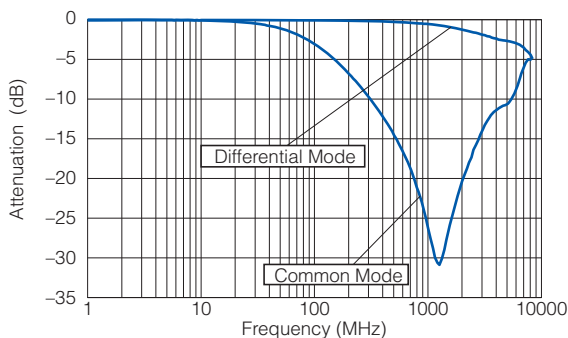


(B) Differential Mode

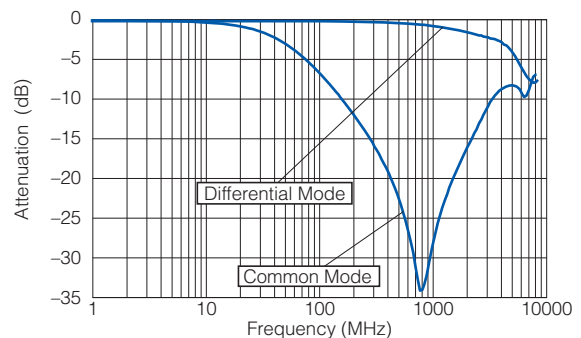


Attenuation Characteristics (Typical)

● EXC14CT500U



● EXC14CT900U



- As for Packaging Methods, Land Pattern, Soldering Conditions and Safety Precautions, Please see Data Files

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