

RoHS Compliant

Features

- Distributed constant type LC filter. Prevents ringing caused by circuit impedance. Suitable for high speed digital circuits and video signal lines.
- Stable noise attenuation over wide frequency ranges.
- Low profile (T=0.95mm max.) suitable for miniature electronic equipments.
- First class auto-placement

Applications

- PCs, Laser Printers, Cellular Phone, Clock Data Lines for LCD Display
- High Speed Video Signal Circuits and Interface Circuits
- High Speed Digital Circuits
- Anti-Noise Solution
Achieves Effective Noise Suppression in Noisy High Speed Circuits without Signal Waveform Distortion

How to Order

KNF 21 050 - W 3
① ② ③ ④ ⑤

- ① Series
- ② Size EIA (EIAJ)
21 :0805 (2012)
- ③ Frequency

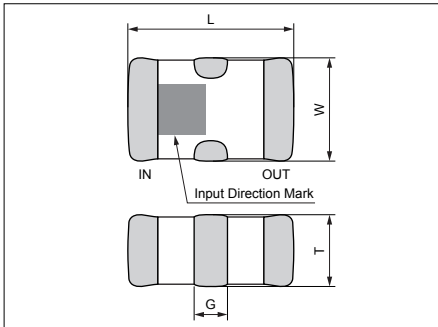
| | | | |
|------------|--------|------------|--------|
| 025 | 25MHz | 200 | 200MHz |
| 050 | 50MHz | 400 | 400MHz |
| 100 | 100MHz | | |

- ④ Taping Direction (See Fig 1)
W: Standard
- ⑤ Quantity per Reel

| | |
|----------|----------|
| 3 | 3000pcs. |
|----------|----------|

Dimensions

(Unit : mm)

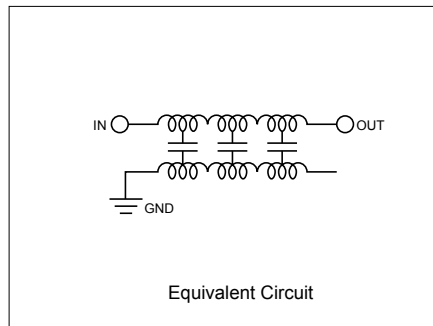


| KNF21 | |
|----------|----------|
| L | 2.0±0.2 |
| W | 1.25±0.2 |
| T | 0.8±0.15 |
| G | 0.4±0.3 |

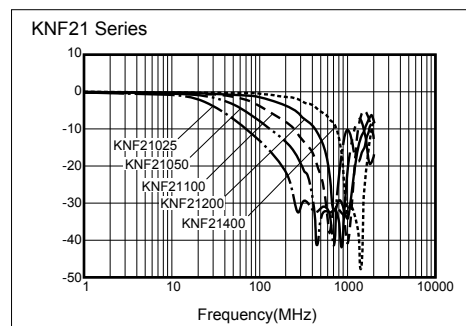
Specifications

| Part Number | Cut off Freq. (MHz) | Capacitance (+50/-20%) (pF) | 20dB Attenuation (Typical) | Rated current(mA) | Rated voltage(VDC) |
|-----------------|---------------------|-----------------------------|----------------------------|-------------------|--------------------|
| KNF21025 | 25MHz | 235pF | 200- 600MHz | 150mA | 25VDC |
| KNF21050 | 50MHz | 130pF | 350- 850MHz | | |
| KNF21100 | 100MHz | 65pF | 450- 950MHz | | |
| KNF21200 | 200MHz | 33pF | 700-1200MHz | | |
| KNF21400 | 400MHz | 17pF | 900-1400MHz | | |

*Cut off Frequency at Attenuation typical 3dB, max. 6dB
Operating Temperature: -25 to 85(°C)



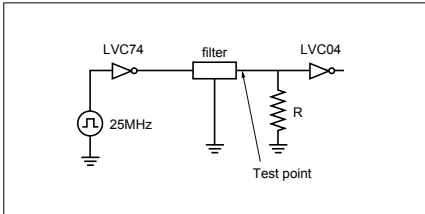
Frequency Characteristics



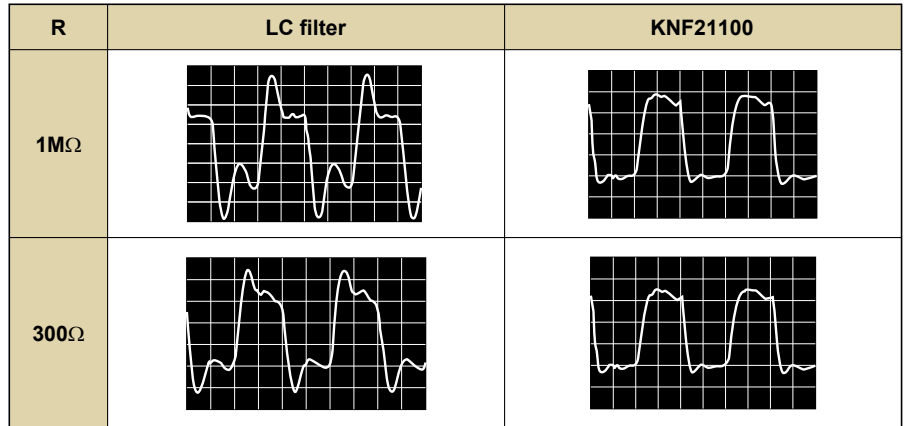
<Impedance Matching Free>

- Stable attenuation against impedance change
- Good impedance matching without ringing on distortion even at the time of IC ON/OFF and pattern layout change

Test circuit

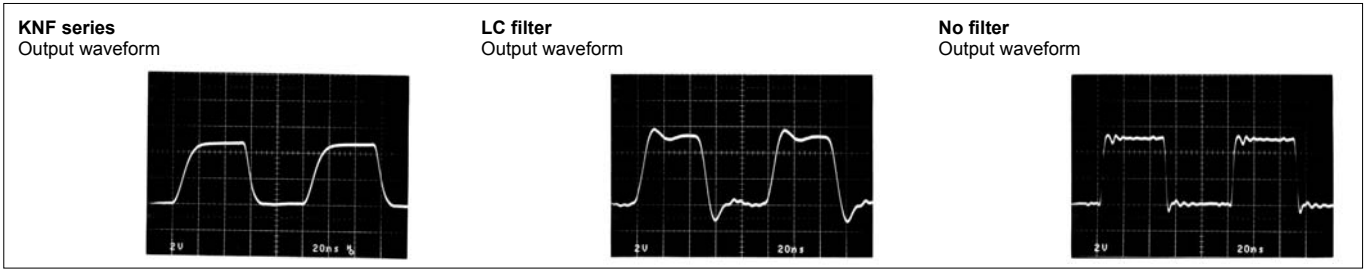


Output Waveform (Clock frequency 25MHz)



<No Ringing>

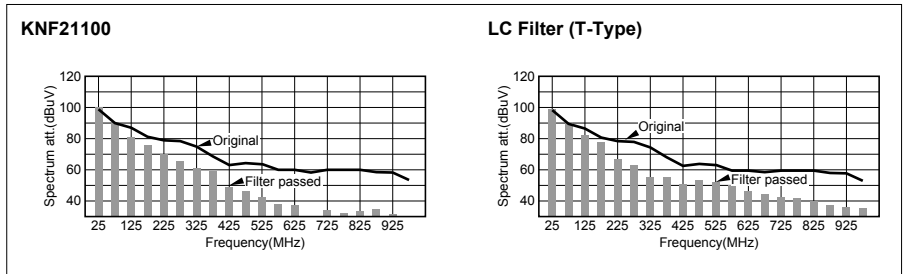
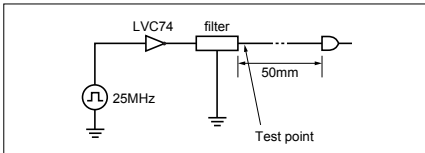
Excellent Impedance Matching



- Wide attenuation up to high frequency range without distortion

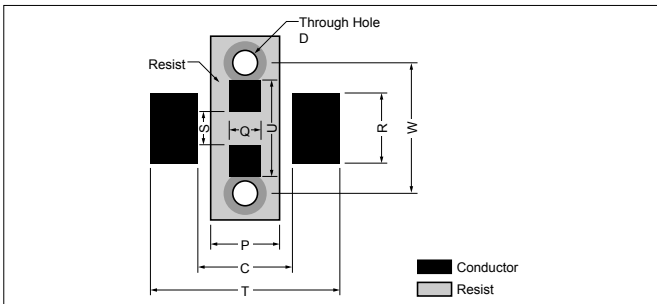
Wide Attenuation Bandwidth

Test Circuit



Recommended Land Pattern

(Unit : mm)

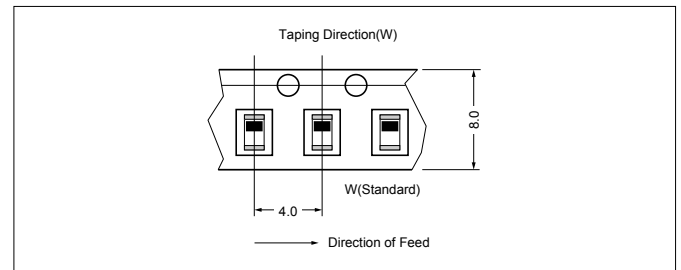


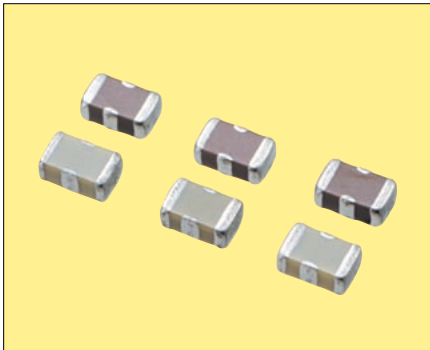
| | T | W | R | C | P | Q | S | D | U |
|-------|------|------|------|------|------|------|------|---------|------|
| KNF21 | 3.20 | 2.30 | 1.00 | 1.20 | 0.80 | 0.40 | 0.60 | 0.3-0.4 | 2.00 |

Packaging Specification (Fig.1)

- Taping (3,000/reel)

(Unit : mm)





Pb Free

RoHS Compliant

Features

- 0805 Size. Rated current up to 2A.
- Effective for filtering noise on power (Vcc) lines.

Applications

- PCs, Laser Printers, Cellular Phone, Power/Signal Lines for LCD Display, Office Equipments
- AV Power Supply/Signal Line, TV, VCR, etc.
- High Current Signal Lines

How to Order

KNH 21 104 - 3 AA
① ② ③ ④ ⑤

- ① Series
- ② Size EIA (EIAJ)
21: 0805 (2012)
- ③ Capacitance Value

| | | | |
|------------|-------|------------|-------|
| 104 | 100nF | 101 | 100pF |
| 473 | 47nF | 470 | 47pF |
| 471 | 470pF | 220 | 22pF |
| 221 | 220pF | | |

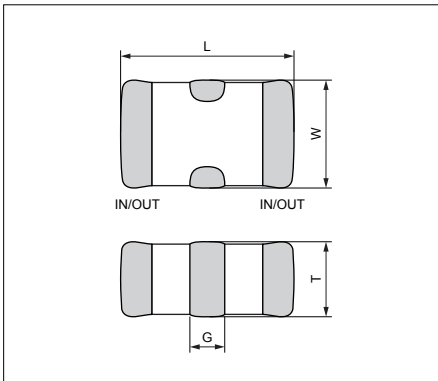
- ④ Quantity per Reel

| | |
|----------|----------|
| 3 | 3000pcs. |
|----------|----------|

- ⑤ Code (AA : STD)

Dimensions

(Unit : mm)



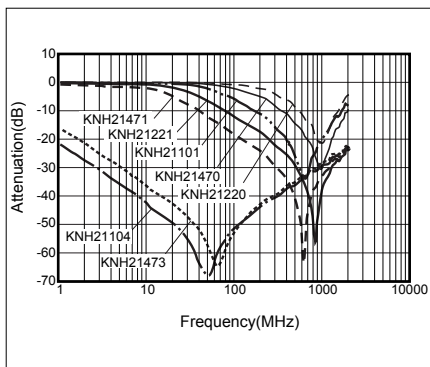
| | KNH21 |
|----------|-----------|
| L | 2.0±0.2 |
| W | 1.25±0.2 |
| T | 0.85±0.15 |
| G | 0.40±0.30 |

Specifications

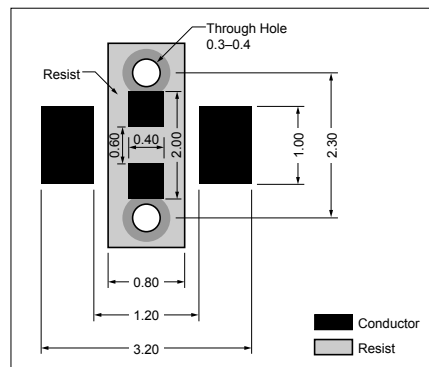
| Type | Capacitance Value(pF) (+50/-20%) | Rated Current (A) | Rated Voltage (VDC) | Direct-current resistance(Ω) |
|-----------------|----------------------------------|-------------------|---------------------|------------------------------|
| KNH21104 | 100,000 | 2.0 | 25 | ≤0.02 |
| KNH21473 | 47,000 | 2.0 | 50 | ≤0.02 |
| KNH21471 | 470 | 1.0 | 50 | ≤0.08 |
| KNH21221 | 220 | 1.0 | 50 | ≤0.08 |
| KNH21101 | 100 | 1.0 | 50 | ≤0.08 |
| KNH21470 | 47 | 1.0 | 50 | ≤0.08 |
| KNH21220 | 22 | 1.0 | 50 | ≤0.08 |

Operating Temperature: -25 to 85(°C)

Attenuation Characteristics

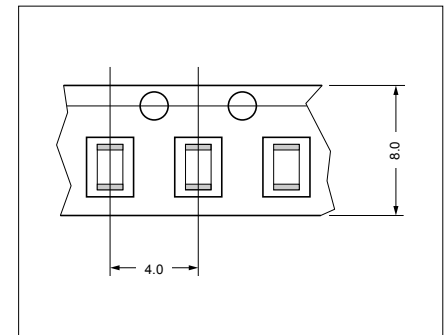


Recommended Land Pattern (Unit : mm)



Packaging specifications

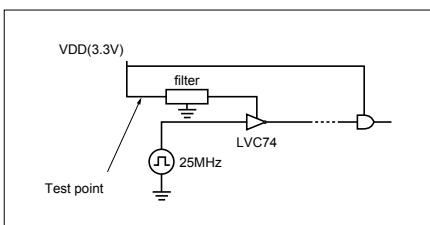
- Taping (3000/reel) (Unit : mm)



<Electrical Characteristics>

- Wide attenuation range including surrounding circuit.

Test Circuit



Attenuation Effect of Power Supply Noise

