

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

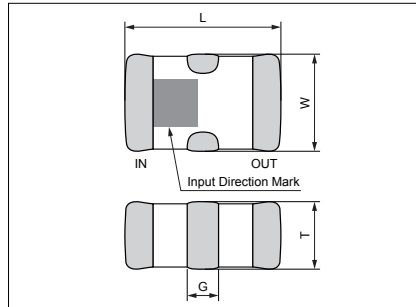
025	25MHz	200	200MHz
050	50MHz	400	400MHz
100	100MHz		

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

3	3000pcs.
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### Dimensions

(Unit : mm)

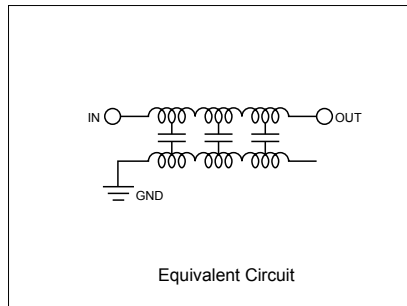


	KNF21
L	2.0±0.2
W	1.25±0.2
T	0.8±0.15
G	0.4±0.3

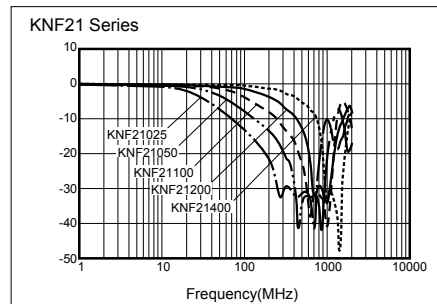
### Specifications

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)



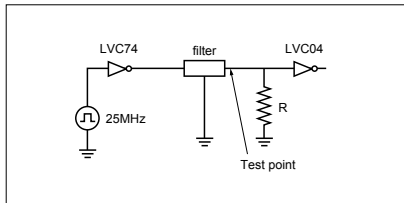
### Frequency Characteristics



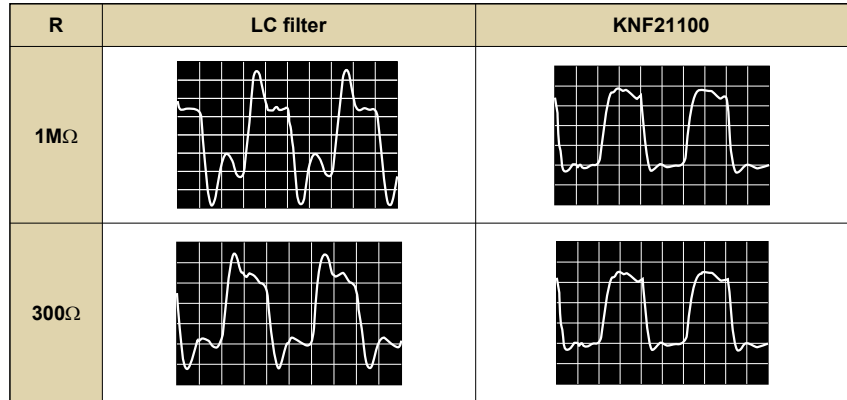
### <Impedance Matching Free>

- 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

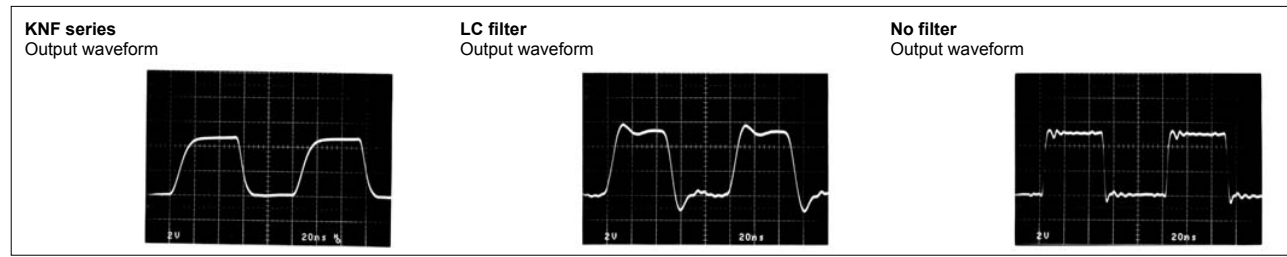


### Output Waveform (Clock frequency 25MHz)



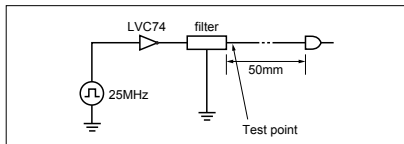
### <No Ringing>

### Excellent Impedance Matching

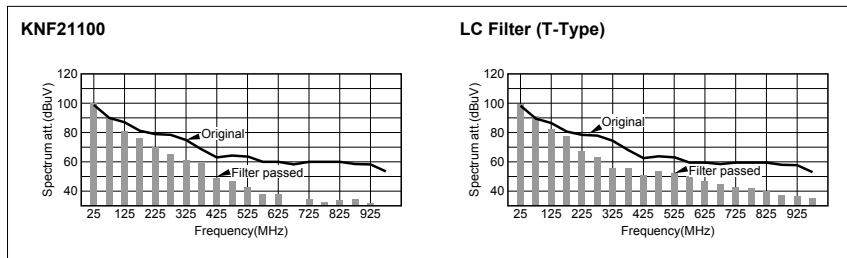


- Wide attenuation up to high frequency range without distortion

#### Test Circuit

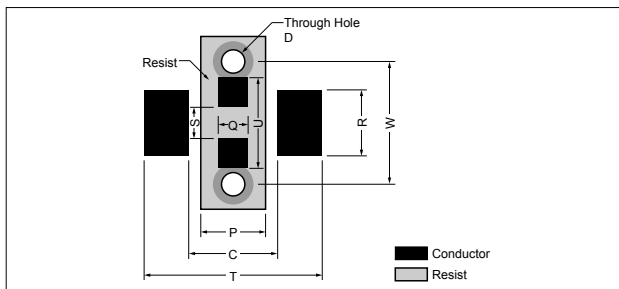


### Wide Attenuation Bandwidth



### Recommended Land Pattern

(Unit : mm)

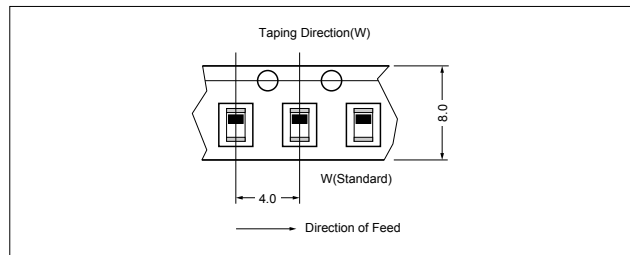


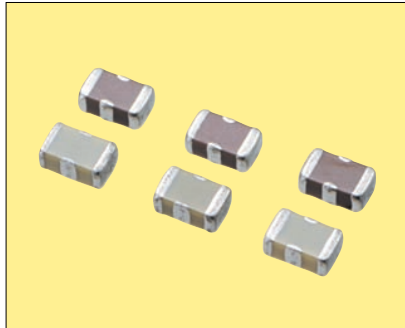
	T	W	R	C	P	Q	S	D	U
KNF21	3.20	2.30	1.00	1.20	0.80	0.40	0.60	0.3-0.4	2.00

### 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		

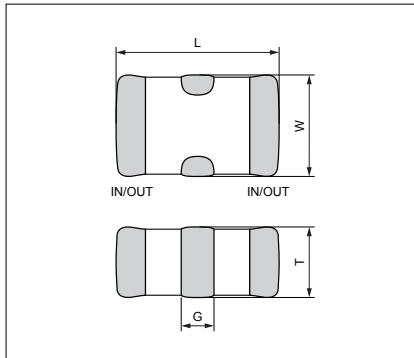
- ④ Quantity per Reel

3	3000pcs.
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- ⑤ Code (AA : STD)

**Dimensions**

(Unit : mm)



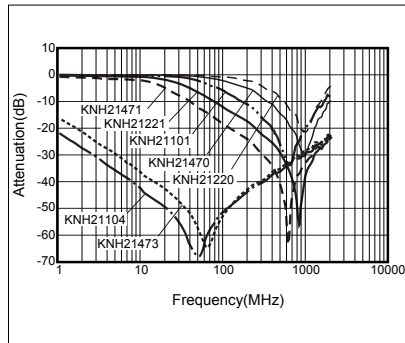
	KNH21
L	2.0±0.2
W	1.25±0.2
T	0.85±0.15
G	0.40±0.30

**Specifications**

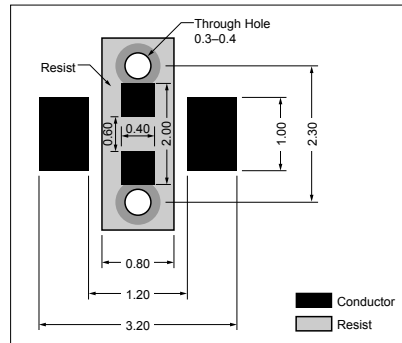
Type	Capacitance Value(pF) (+50/-20%)	Rated Current (A)	Rated Voltage (VDC)	Direct-current resistance(Ω)
KNH21104	100,000	2.0	25	≤0.02
KNH21473	47,000	2.0	50	≤0.02
KNH21471	470	1.0	50	≤0.08
KNH21221	220	1.0	50	≤0.08
KNH21101	100	1.0	50	≤0.08
KNH21470	47	1.0	50	≤0.08
KNH21220	22	1.0	50	≤0.08

Operating Temperature: -25 to 85(°C)

**Attenuation Characteristics**



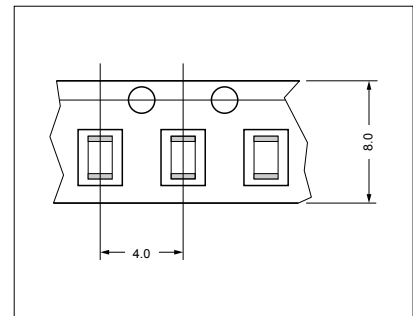
**Recommended Land Pattern** (Unit : mm)



**Packaging specifications**

- Taping (3000/reel)

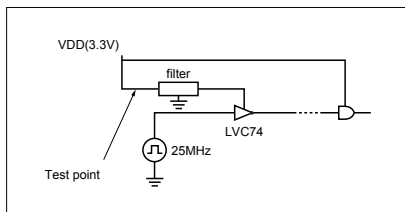
(Unit : mm)



**<Electrical Characteristics>**

- Wide attenuation range including surrounding circuit.

**Test Circuit**



**Attenuation Effect of Power Supply Noise**

