

贴片型EMI滤波器一览表

Chip type EMI filters

系列 Series	形状 Style	等效电路 Equivalent circuit	特 点 Features	用 途 Applications	页 码 Page
新产品 LC复合EMI滤波器 LCA10, LCA20系列 Chip type LC EMI filter LCA10, LCA20 Series			<ul style="list-style-type: none">LC复合EMI滤波器LCA系列是组合了L(电感器)和C(电容器)的高性能三端子表面贴装元件。采用本公司独有的小型、高性能化技术,与以往产品相比,衰减系数更大、除噪频带更宽,特别适用于高频、高速信号线的降噪。The LC EMI filter, LCA series, is an extremely efficient EMI filter with monolithic construction of inductor and capacitor elements, suitable for noise reduction on high frequency single line, due to steep and wide band insertion loss characteristics.	<ul style="list-style-type: none">电视机、录像机、DVD等数字影像设备传真机、调制解调器、ADSL终端等信息通信设备复印机、个人电脑、游戏机等数字设备其它各种电子设备的降噪方案	34
LC复合EMI滤波器 LFA10系列 Chip type LC EMI filter LFA10 Series			<ul style="list-style-type: none">由L(电感器)和C(电容器)复合而成的高性能单片式EMI滤波器具有急剧的插入损失特性,可在宽频率范围内防止噪声可打上标记Extremely efficient EMI filter made of a combination of both dielectric and magnetic materials.Well suited for eliminating noise on high frequency signal lines, due to steep insertion loss.Marking available.	<ul style="list-style-type: none">For digital AV equipment such as TV, VCR and DVD.For telecommunication equipment such as Fax, modem and ADSL.For computer equipment such as personal computers and copier.For noise countermeasure of other digital circuit equipment.	35
LC复合EMI滤波器 LFA20系列 Chip type LC EMI filter LFA20 Series					
LC复合EMI滤波器 LFA30系列 Chip type LC EMI filter LFA30 Series					
新产品 LC复合EMI滤波器 LCA14系列 Chip type LC EMI filter array LCA14 Series			<ul style="list-style-type: none">由L(电感器)和C(电容器)复合而成的高性能单片式EMI滤波器具有急剧的插入损失特性,可在宽频率范围内防止噪声1608形状2012形状3216形状4路阵列滤波器LFH24系列为小型LCA24系列为低容值型LCA14系列为小型Extremely efficient EMI filter with monolithic construction of inductor and capacitor elements.Well suited for eliminating noise on high frequency signal lines, due to steep insertion loss.0603 size0805 size1206 size4 lines of LC filter.LFH24 series are a small type.LCA24 series are Low Capacitance type.LCA14 series are a small type.	<ul style="list-style-type: none">数字影像设备等各种电子设备的降噪方案高速总线、接口线路的降噪方案EMI solution for Digital EquipmentSuitable for High-speed bass line,I/O	37
LC复合EMI滤波器 LCA24系列 Chip type LC EMI filter array LCA24 Series					
LC复合EMI滤波器 LFA24、LFH24系列 Chip type LC EMI filter array LFA24, LFH24 Series					
LC复合EMI滤波器 LFA34系列 Chip type LC EMI filter array LFA34 Series			<ul style="list-style-type: none">由L(电感器)和C(电容器)复合而成的高性能单片式EMI滤波器具有急剧的插入损失特性,可在宽频率范围内防止噪声DC电源线路用额定电流: 1A但LFB20-3D1E471M、LFB30-3D1E471M为2A产品Extremely efficient EMI filter made of a combination of both dielectric and magnetic materials.Well suited for eliminating noise on high frequency signal lines, due to steep insertion loss.Well suited for reducing EMI noise on DC power lines.Max. DC current is 1A, however DC current of LFB20-3D1E471M, LFB30-3D1E471M are 2A Max.	<ul style="list-style-type: none">各种数字设备的DC电源线路的降噪方案Noise reduction for computersComputer peripheral equipmentDigital TVCellular telephone, etc.	40
LC复合EMI滤波器 LFB30额定电流1A产品 Chip type LC EMI filter LFB30 1A Series					
EMI滤波器 LFB20、LFB30 2A产品 Chip type EMI filter LFB20, LFB30 2A Series					
LC复合EMI滤波器 (双端子型) LZA05系列 Chip type LC EMI filter(2Terminals) LZA05 Series			<ul style="list-style-type: none">本滤波器利用LC共振,可在宽频率范围内使用。同时,也是带阻型EMI滤波器,备有可选择阻带的产品系列。即使对于接地不稳定的设备、电路,也能发挥稳定的降噪方案效果。	<ul style="list-style-type: none">便携设备及各种电子设备的降噪方案EMI solution for mobile electronic devices, etc.	42
LC复合EMI滤波器 (双端子型) LZA10系列 Chip type LC EMI filter(2Terminals) LZA10 Series			<ul style="list-style-type: none">Using LC resonance, this part works as a band stop filter with a wide selection of rejected frequency band, and shows effective noise reduction for equipment and circuits with unstable ground.		43

LC复合EMI滤波器LCA10、LCA20系列

LC复合EMI滤波器LCA系列是在1608和2125尺寸中组合了L(电感器)和C(电容器)的高性能三端子表面贴装元件。采用本公司独有的小型、高性能化技术，与以往产品相比，衰减系数更大、除噪频带更宽，特别适用于高频、高速信号线的降噪。

■特点

- 超小型、薄型。
- 急剧的插入损失特性。
- 适用于宽频带的降噪。
- 无方向极性，使用方便。

■用途

- 电视机、录像机、DVD等数字影像设备
- 传真机、调制解调器、ADSL终端等信息通信设备
- 复印机、个人电脑、游戏机等数字设备
- 其它各种电子设备的降噪

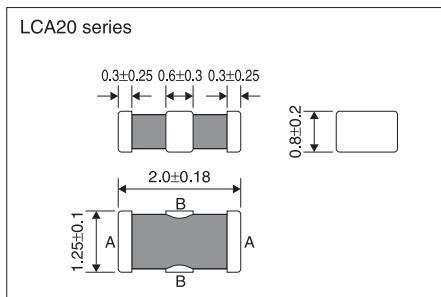
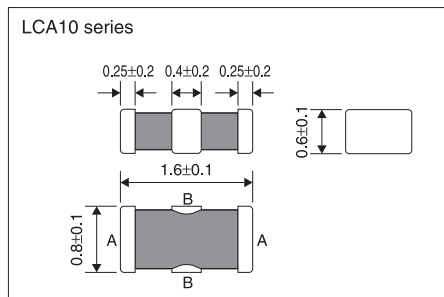
新产品



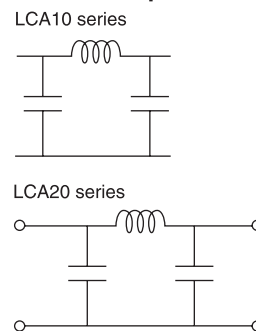
■型号构成 Part number system

LCA	10	—	2A	1A	683	M	T
系列名 Series	形状 Size LCA10: 1.6 × 0.8mm (L) (W) LCA20: 2.0 × 1.25mm (L) (W)		额定电流 Rated current 2A : 100mA	额定电压 Rated voltage 1A : 10V 1E : 25V	断开频率 Cut-off frequency 68MHz	断开频率容限 Cut-off frequency tolerance M : ±20%	包装形式 Packing form T : 带装 Taping B : 散装 Bulk

■形状及尺寸 (mm) Dimensions (mm)



■等效电路 Equivalent circuits



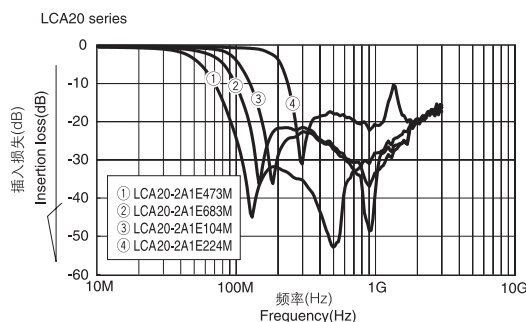
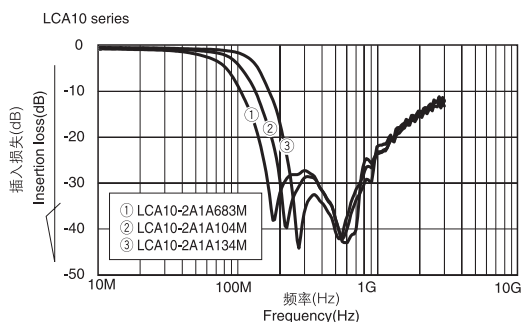
■型号一览表 Part number list

型 号 Part number	断开频率 Cut-off frequency	断开频率容限 Cut-off frequency tolerance	额定电压 Rated voltage	额定电流 Rated current	绝缘阻抗 Insulation Resistance	静电容量 Capacitance (参考值Reference)	使用温度范围 Operating Temp. range
LCA10-2A1A683M□	68MHz	±20%	10V	100mA	10MΩmin.	55pF	-40℃~ +85℃
LCA10-2A1A104M□	100MHz					50pF	
LCA10-2A1A134M□	130MHz					50pF	
LCA20-2A1E473M□	47MHz		25V			115pF	
LCA20-2A1E683M□	68MHz					58pF	
LCA20-2A1E104M□	100MHz					58pF	
LCA20-2A1E224M□	220MHz	32pF					

□: T为带装，B为散装

□: "T" stands for taping package and "B" stands for bulk package.

■插入损失特性(参考) Insertion loss (Reference)



LC复合EMI滤波器LFA10、LFA20、LFA30系列 CHIP TYPE LC EMI FILTER LFA10,LFA20,LFA30 SERIES

LC复合EMI滤波器LFA10、LFA20、LFA30系列是采用将电介质和磁介质复合并一体化烧结而成的材料生产的高性能EMI滤波器。该产品具有超小型、薄型、无方向极性的特点，适合于高密度贴装。

特点

- 采用诱导体和磁性体一体化的单片结构。
- 超小型、薄型。
- 急剧的插入损失特性。
- 适用于宽频带的降噪。
- 无方向极性，使用方便。

用途

- 电视机、录像机、DVD等数字影像设备
- 传真机、调制解调器、ADSL终端等信息通信设备
- 复印机、个人电脑、游戏机等数字设备
- 其它各种电子设备的降噪方案

Our "LFA10, LFA20, LFA30" series chip type LC EMI filter is an extremely efficient EMI filter made of a combination of both dielectric and magnetic materials. They are well suited for elimination of noise on high frequency signal lines, due to their steep insertion loss characteristics.

Features

- Monolithic construction of dielectric and magnetic materials
- Ultra miniature and low profile type
- Steep insertion loss characteristics
- Removes noise over a wide range
- Easy to place since there is no polarity

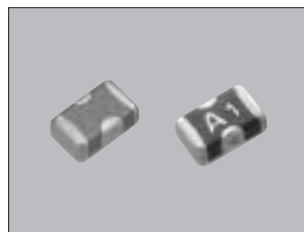
Applications

- For digital AV equipment such as TV, VCR and DVD.
- For telecommunication equipment such as Fax, modem and ADSL.
- For computer equipment such as personal computers and copier.
- For noise countermeasure of other digital circuit equipment.

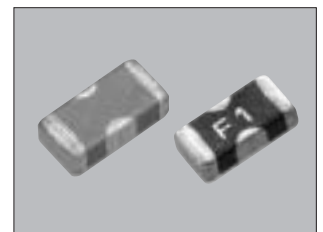
LFA10 series



LFA20 series



LFA30 series

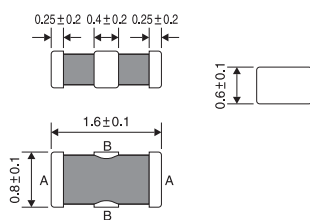


型号构成 Part number system

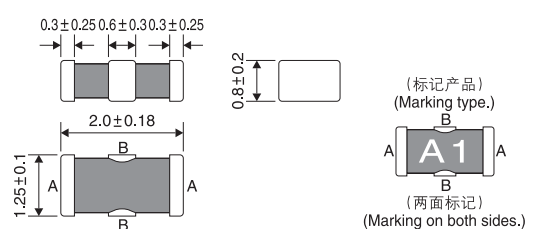
LFA	10	—	2A	1E	223	M	T	E
系列名 Series	形状 Size 10: 1.6×0.8mm 20: 2.0×1.25mm 30: 3.2×1.6mm (L) (W)		额定电流 Rated current 2A: 100mA	额定电压 Rated voltage 1E: 25V	断开频率 Cut-off frequency	断开频率 容许偏差 Cut-off frequency tolerance M: ±20%	包装形式 Packing form T: 带装 Taping B: 散装 Bulk	标记 Marking E: 有 with 空白: 无 Blank: without LFA10: 无 without

形状・尺寸(mm) Dimensions (mm)

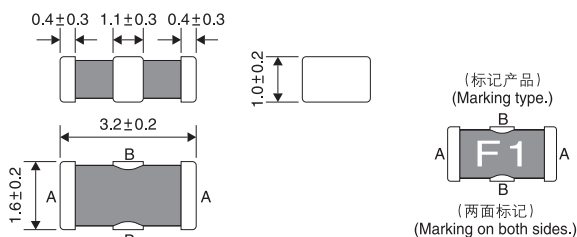
LFA10 series



LFA20 series

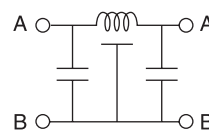


LFA30 series

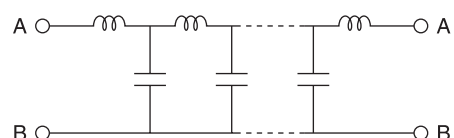


等效电路 Equivalent circuits

LFA10 series



LFA20,30 series



型号一览表 Part number list

型 号 Part number	断开频率 Cut-off frequency	标记记号 Marking	断开频率容许偏差 Cut-off frequency tolerance	额定电压 Rated voltage	额定电流 Rated current	绝缘阻抗 Insulation Resistance	使用温度范围 Operating Temp. range
LFA10 series			±20%	25V	100mA	10MΩmin.	-40°C~+85°C
LFA10-2A1E223M□	22MHz	<div></div>					
LFA10-2A1E473M□	47MHz						
LFA10-2A1E683M□	68MHz						
LFA10-2A1E104M□	100MHz						
LFA20 series							
LFA20-2A1E103M□■	10MHz	A1					
LFA20-2A1E223M□■	22MHz	A2					
LFA20-2A1E473M□■	47MHz	A3					
LFA20-2A1E683M□■	68MHz	A4					
LFA20-2A1E104M□■	100MHz	A5					
LFA20-2A1E224M□■	220MHz	A6					
LFA30 series							
LFA30-2A1E103M□■	10MHz	F1					
LFA30-2A1E223M□■	22MHz	F2					
LFA30-2A1E473M□■	47MHz	F3					
LFA30-2A1E683M□■	68MHz	F4					
LFA30-2A1E104M□■	100MHz	F5					
LFA30-2A1E224M□■	220MHz	F6					

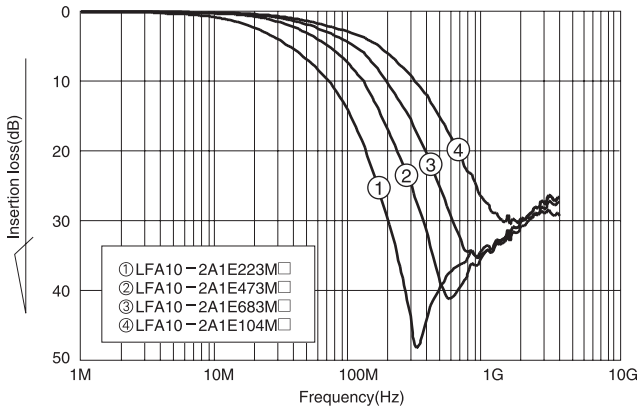
□: T表示带装、B为散装
□: "T" stands for taping package and "B" stands for bulk package.

■: E表示有标记、无记号表示无标记
■: "E" stands for marking type and " " stands for non-marking type.

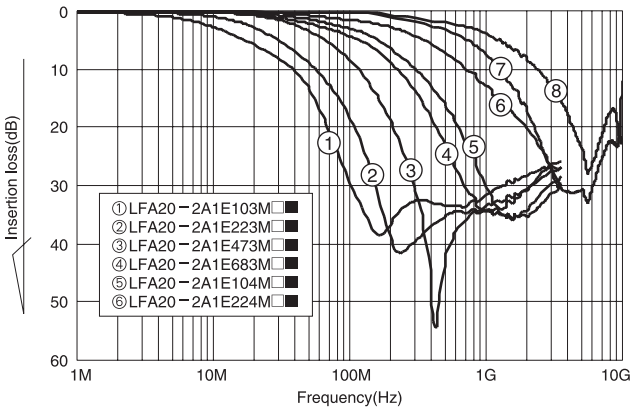
EMI FILTER
EMI 滤波器

插入损失特性(参考) Insertion loss (Reference)

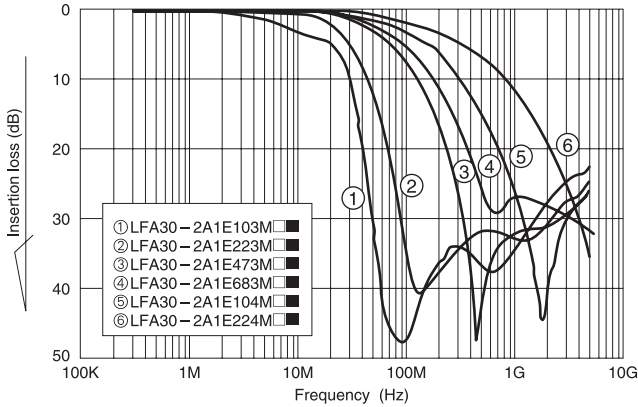
LFA10 series



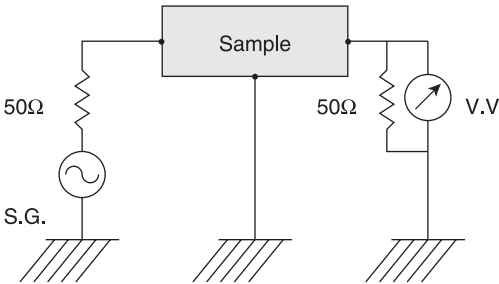
LFA20 series



LFA30 series



电路图 Test circuit



LC复合EMI滤波器阵列LCA14、LCA24系列 (便携式终端 信号线用)

CHIP TYPE LC EMI FILTER ARRAY LCA14,LCA24 SERIES For Signal Line

LC复合EMI滤波器阵列LCA14、LCA24系列是高性能EMI滤波器阵列，适用于便携式终端RF频带的降噪。是内置4个LC多级电路的三端子型阵列，衰减系数大、除噪频带宽，适用于信号线的高频降噪。

The LC EMI filter array, LCA14, LCA24 series, is highly effective to the noise filtering for the RF frequency band of a mobile phone. 4 LC circuits of 3 terminal type are enclosed. It is suitable for high frequency noise filtering because of it is large attenuation coefficient and deep wide noise removal band.

■特点

- 超小型阵列产品，适用于高密度信号线。
- 在800MHz~2GHz的频带范围内具有很好的噪声衰减效果。
- 急剧的衰减特性，适用于高频信号线。
- 备有各种静电容量值的产品。
- 低静电容量型。

■用途

- 移动电话、数字影像设备

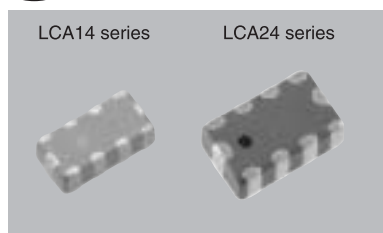
■Features

- Ultra miniature and low profile and suitable for high density circuit lines.
- Large attenuation in the frequency range 800MHz to 2GHz
- Steep insertion loss and suitable for high speed signal line.
- Products of different capacitance values are available.
- smaller capacitance

■Applications

- For mobile phones and digital AV equipments

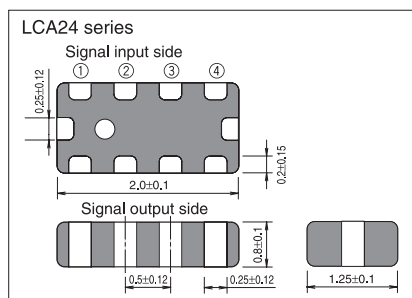
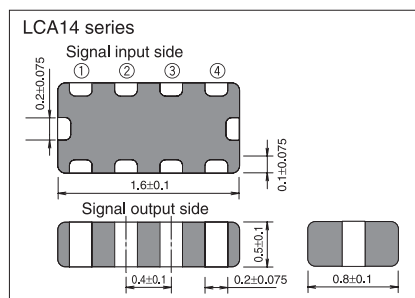
新产品



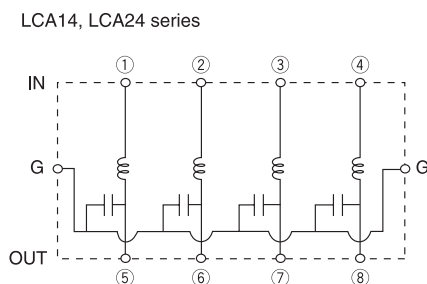
■型号构成 Part number system

LCA	14	—	2A	1A	194	M	T	28
系列名 Series LCA: 低电容 产品 Low Cap.	形状 Size 14: 1.6×0.8mm 24: 2.0×1.25mm 4线阵列		额定电流 Rated current 2A: 100mA	额定电压 Rated voltage 1A: 10V	断开频率 Cut-off frequency 190MHz	断开频率容限 Cut-off frequency tolerance M: ±20%	包装形式 Packing form T: 带装 Taping B: 散装 Bulk	静电容量 28: 28pF

■形状・尺寸(mm) Dimensions (mm)



■等效电路 Equivalent circuits



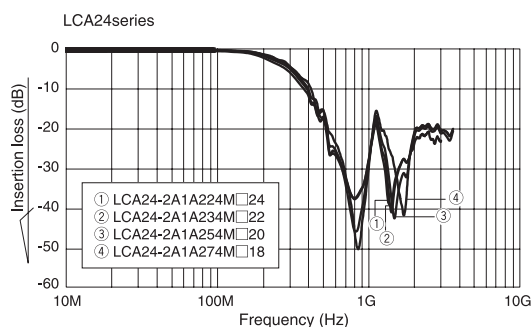
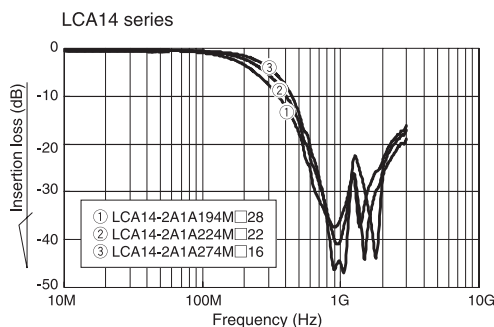
■型号一览表 Part number list

型 号 Part number	断开频率 Cut-off frequency	断开频率容许偏差 Cut-off frequency tolerance	额定电压 Rated voltage	额定电流 Rated current	绝缘阻抗 Insulation Resistance	静电容量 Capacitance (参考值Reference)	使用温度范围 Operating Temp. range
LCA14-2A1A194M□28	190MHz	±20%	10V	100mA	10MΩmin.	28pF±15%	-40°C ~ +85°C
LCA14-2A1A224M□22	220MHz					22pF±15%	
LCA14-2A1A274M□16	270MHz					16pF±15%	
LCA24-2A1A224M□24	220MHz					24pF±15%	
LCA24-2A1A234M□22	230MHz					22pF±15%	
LCA24-2A1A254M□20	250MHz					20pF±15%	
LCA24-2A1A274M□18	270MHz					18pF±15%	

□: T为带装、B为散装

□: "T" stands for taping package and "B" stands for bulk package.

■插入损失特性(参考) Insertion loss (Reference)



LC复合EMI滤波器LFA24、LFH24系列

CHIP TYPE LC EMI FILTER ARRAY LFA24,LFH24 SERIES

LC复合EMI滤波器LFA24、LFH24系列是复合L(电感器)和C(电容器)的高性能单片式EMI滤波器阵列。该产品采用2012或2010形状，内置4个LC多级电路，是3端子型的阵列，衰减系数大、除噪频带宽，适合于抑制信号线路中的高频噪声。LFA24、LFH24系列为分布常数电路。

特点

- 内置4线LC多级电路，适合于高密度线路。
- 小型、薄型。
- 具有急剧的插入损失特性和宽范围的噪声吸收频带。
- LFH24系列为小型产品。(2.0×1.0mm)

用途

- 数字影像设备、移动电话



Our "LFA24, LFH24" series are extremely efficient EMI filter arrays with monolithic construction of inductor and capacitor elements. They are 3 terminal arrays of 4 LC circuits in a 0805 or 0804 package, suitable for noise reduction on high frequency signal lines, due to steep and wide-band insertion loss characteristics. LFA24 and LFH24 series have distributed element circuits.

Features

- Array of 4 LC filters, suitable for high density circuit lines.
- Ultra miniature and low profile type
- Steep insertion loss characteristics and removes noise over a wide range.
- LFH24 series is smaller. (0804 size)

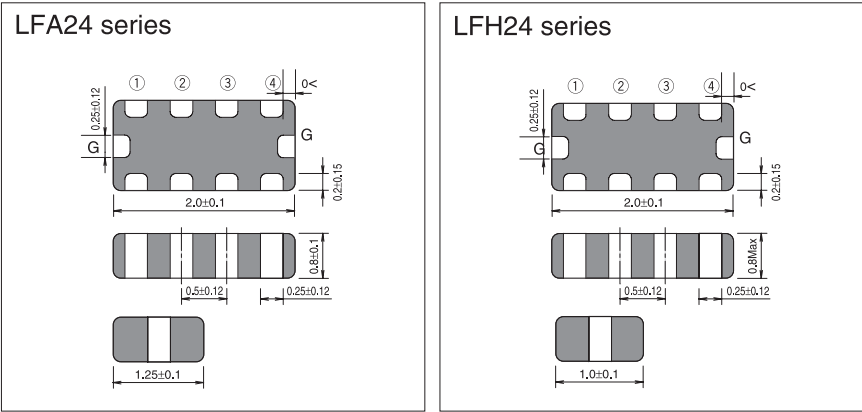
Applications

- For digital AV equipment and cellular phone.

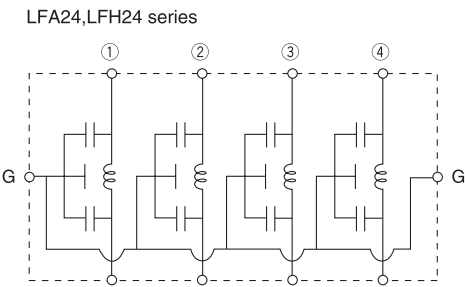
型号构成 Part number system

LFA	24	—	2A	1A	473	M	T
系列名 Series LFA:通常产品 Normal LFH:小型产品 Small	形状 Size LFA24:2.0×1.25mm (L)(W) LFH24:2.0×1.0mm (L)(W)		额定电流 Rated current 2A:100mA	额定电压 Rated voltage 1A:10V	断开频率 Cut-off frequency	断开频率 容许偏差 Cut-off frequency tolerance M:±20%	包装形式 Packing form T:带装 Taping B:散装 Bulk

形状・尺寸(mm) Dimensions (mm)



等效电路 Equivalent circuits

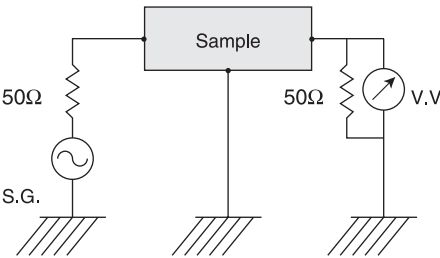


型号一览表 Part number list

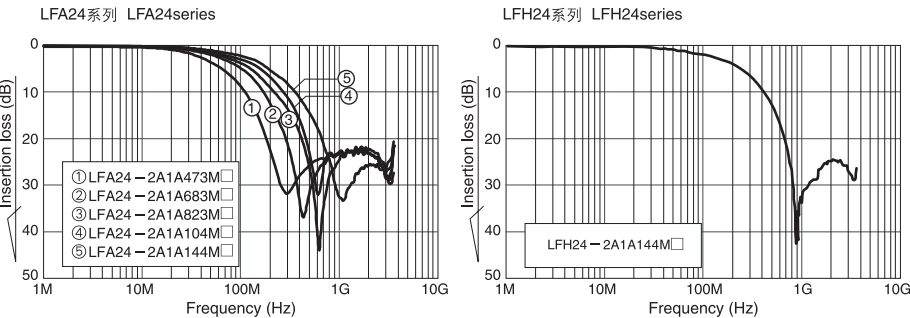
型号 Part number	断开频率 Cut-off frequency	断开频率容许偏差 Cut-off frequency tolerance	额定电压 Rated voltage	额定电流 Rated current	绝缘阻抗 Insulation Resistance	使用温度范围 Operating Temp. range
LFA24-2A1A473M□	47MHz	±20%	10V	100mA	10MΩmin.	-40℃~+85℃
LFA24-2A1A683M□	68MHz					
LFA24-2A1A823M□	82MHz					
LFA24-2A1A104M□	100MHz					
LFA24-2A1A144M□	140MHz					
LFH24-2A1A144M□	140MHz					

- : T表示带装, B表示散装
□: "T" stands for taping package and "B" stands for bulk package.

电路图



插入损失特性(参考) Insertion loss (Reference)



LC复合EMI滤波器LFA34系列

CHIP TYPE LC EMI FILTER ARRAY LFA34 SERIES

LC复合EMI滤波器LFA34系列是采用将电介质和磁介质复合并一体化烧结而成的材料生产的高性能EMI滤波器阵列。该产品采用3216形状，内置4个LC多级电路，是3端子型的阵列，衰减系数大、除噪频带宽，适合于抑制信号线路中的高频噪声。

特点

- 采用电介质和磁介质一体化的单片结构。
- 内置4线LC多级电路，适合于高密度线路。
- 超小型、薄型。
- 具有急剧的插入损失特性和宽范围的噪声吸收频带。

用途

- 数字影像设备、各种电子设备

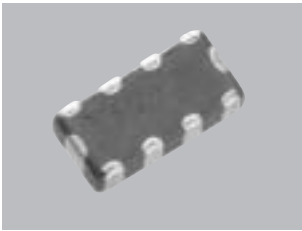
Our "LFA34" series chip type LC EMI filter array is an extremely efficient EMI filter made of a combination of both dielectric and magnetic materials. It is a 3 terminal array of 4 LC ladder circuits in a 1206 package, suitable for noise reduction on high frequency signal lines, due to steep and wide-band insertion loss characteristics.

Features

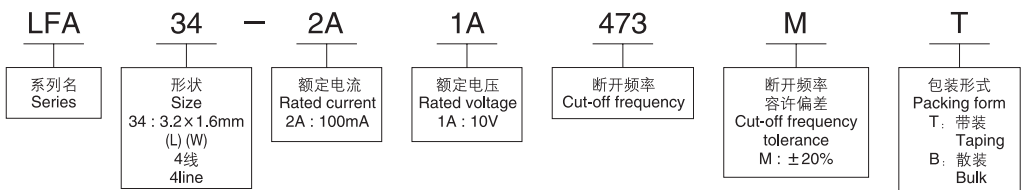
- Monolithic construction of dielectric and magnetic materials.
- Array of 4 LC filters, suitable for high density circuit lines.
- Ultra miniature and low profile type
- Steep insertion loss characteristics and removes noise over a wide range.

Applications

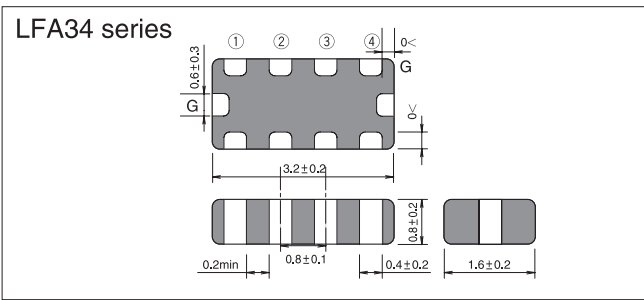
- For digital AV equipment and other digital circuit equipment.



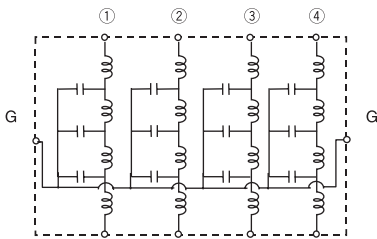
型号构成 Part number system



形状・尺寸(mm) Dimensions (mm)



等效电路 Equivalent circuits

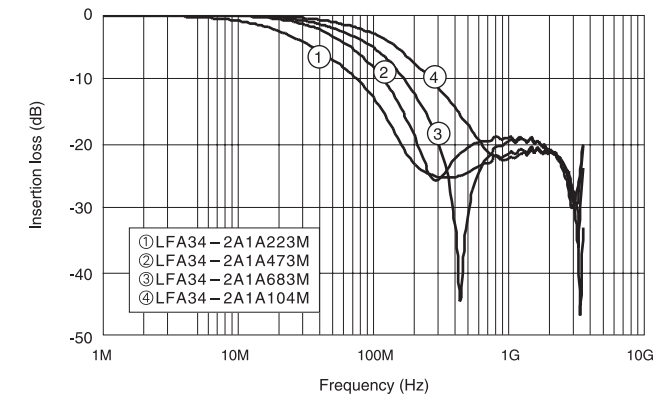


型号一览表 Part number list

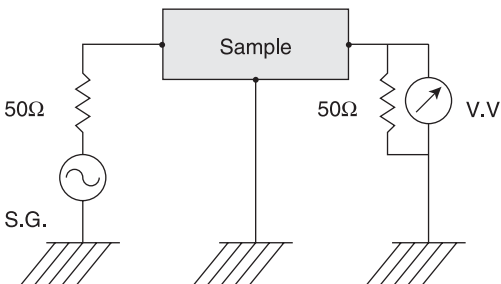
型 号 Part number	断开频率 Cut-off frequency	断开频率容许偏差 Cut-off frequency tolerance	额定电压 Rated voltage	额定电流 Rated current	绝缘阻抗 Insulation Resistance	使用温度范围 Operating Temp. range
LFA34-2A1A223M□	22MHz	±20%	10V	100mA	10MΩmin.	-40°C~+85°C
LFA34-2A1A473M□	47MHz					
LFA34-2A1A683M□	68MHz					
LFA34-2A1A104M□	100MHz					

- : T表示带装、B表示散装
□: "T" stands for taping package and "B" stands for bulk package.

插入损失特性(参考) Insertion loss (Reference)



电路图 Test circuit



LC复合EMI滤波器LFB30额定电流1A系列

CHIP TYPE LC EMI FILTER LFB30 SERIES
(Rated Current:1A)

LC复合EMI滤波器LFB30额定电流1A系列是采用将电介质和磁介质复合并一体化烧结而成的材料生产的高性能EMI滤波器。具有急剧的插入损失特性，并可适应大电流（~1A），最适用于DC电源线路的高频降噪方案。

特点

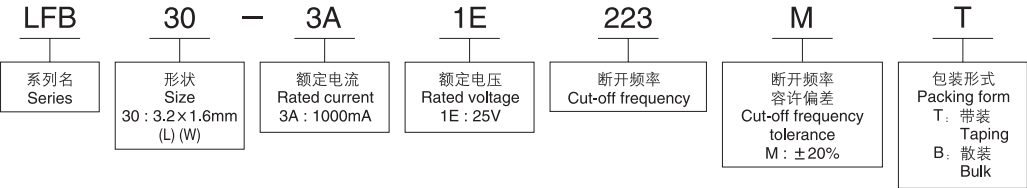
- 采用电介质和磁介质一体化的单片结构。
- 急剧的特入损失特性。
- 可应对宽频率范围的降噪方案。
- 无方向极性，使用方便。
- 适应大电流（~1A），有效抑制DC电源线路的EMI噪声。

用途

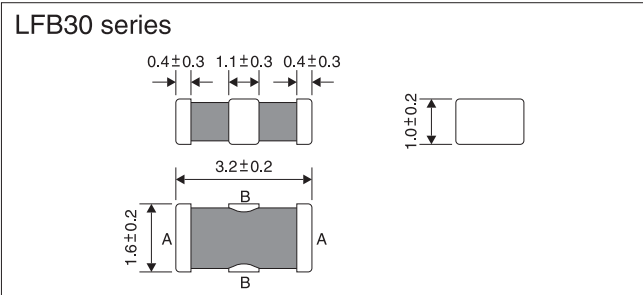
计算机及其外围设备、数字电视、数字录像机、移动电话等的DC电源线路的降噪方案。



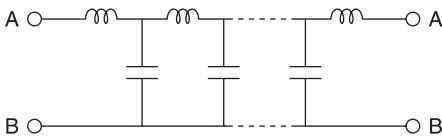
型号构成 Part number system



形状・尺寸(mm) Dimensions (mm)



等效电路 Equivalent circuits

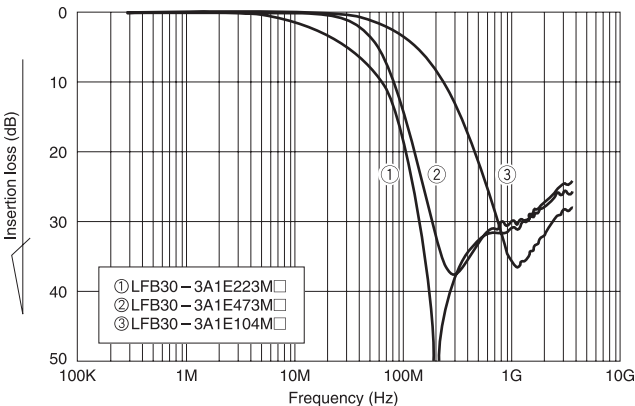


型号一览表 Part number list

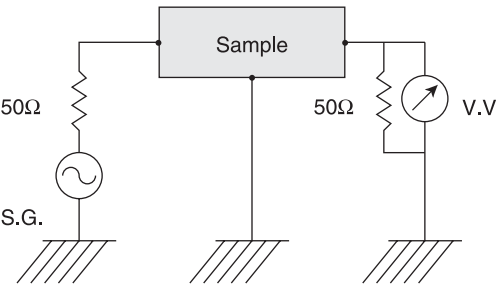
型 号 Part number	断开频率 Cut-off frequency	断开频率容许偏差 Cut-off frequency tolerance	额定电压 Rated voltage	额定电流 Rated current	绝缘阻抗 Insulation Resistance	使用温度范围 Operating Temp. range
LFB30-3A1E223M□	22MHz	±20%	25V	1000mA	10MΩmin.	-25°C~+85°C
LFB30-3A1E473M□	47MHz					
LFB30-3A1E104M□	100MHz					

□: T表示带装、B表示散装
□: "T" stands for taping package and "B" stands for bulk package.

插入损失特性(参考) Insertion loss (Reference)



电路图 Test circuit



EMI滤波器LFB20、LFB30额定电流2A系列

CHIP TYPE EMI FILTER LFB20,LFB30 SERIES
(Rated Current:2A)

EMI滤波器LFB20、LFB30系列2A产品是小型高性能EMI滤波器，用于要求大容许电流的电源线路。本产品适合于消除电源线路中的低频—高频的宽频率范围内的噪声，是3端子形状的小型表面组装元件。

特点

- 额定电流2A。
- 可消除从低频率开始的宽频率范围内的噪声。
- 小型、低高度，使用方便。
- LFB30型可打上标记。

用途

AV设备、计算机及其外围设备的DC电源线路。

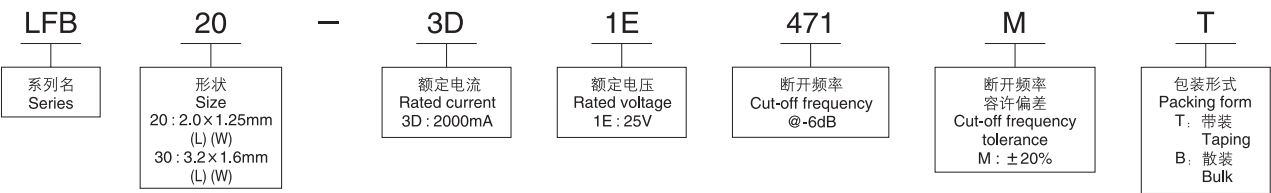
Features

- Rated current is 2 ampere.
- Remove noise over a wide range from low frequency.
- Miniature and low profile and easy to place since there is no polarity.
- Marking type is available for LFB30 Type.

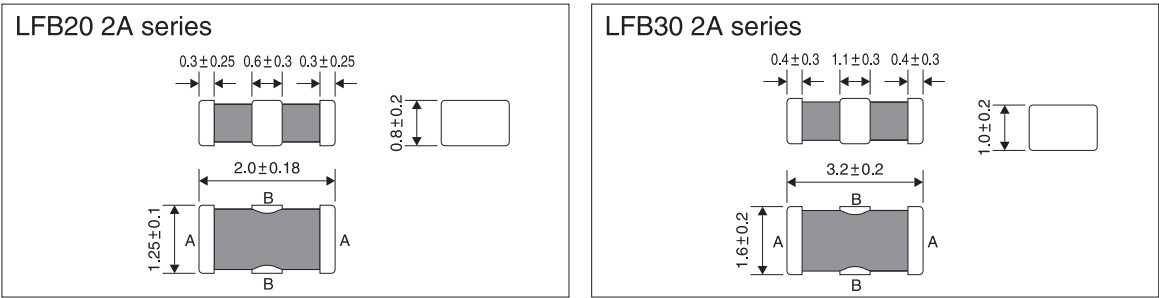
Applications

Noise reduction of DC power lines for AV equipment, computer and computer peripheral equipment.

型号构成 Part number system



形状・尺寸(mm) Dimensions (mm)

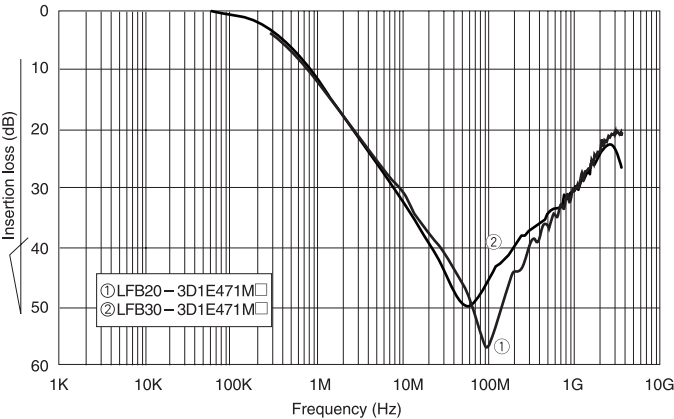


型号一览表 Part number list

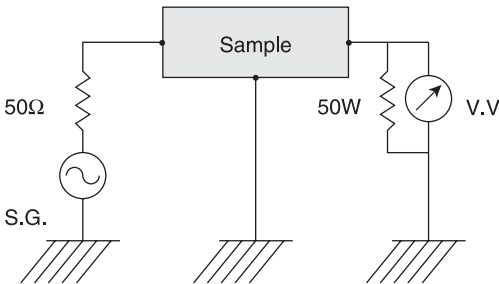
型 号 Part number	断开频率 Cut-off frequency	断开频率容许偏差 Cut-off frequency tolerance	额定电压 Rated voltage	额定电流 Rated current	绝缘阻抗 Insulation Resistance	使用温度范围 Operating Temp. range
LFB20-3D1E471M□	470KHz	±20%	25V	2000mA	10MΩmin.	-40°C ~ +85°C
LFB30-3D1E471M□						

□: T表示带装、B表示散装
□: "T" stands for taping package and "B" stands for bulk package.

插入损失特性(参考) Insertion loss (Reference)



电路图 Test circuit



LC复合EMI滤波器LZA05系列(双端子型)

CHIP TYPE LC EMI FILTER LZA05 SERIES(2 Terminals)

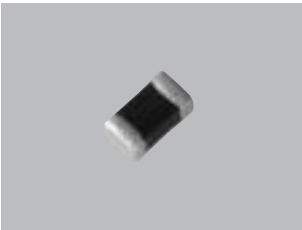
双端子型LC复合EMI滤波器LZA05系列是采用将电介质和磁介质复合并一体化烧结而成的材料生产的高性能EMI滤波器。本滤波器利用LC共振，频率适用范围宽，是带阻型EMI滤波器，备有可选择阻带的产品系列。即使对于接地不稳定的设备、电路，也能发挥稳定的降噪效果。最适合于数字影像设备、移动设备等高速信号线路的高频降噪。

特点

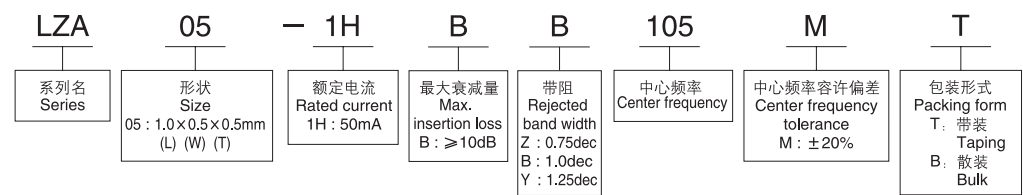
- 采用电介质和磁介质一体化的单片式结构。
- 可选择噪声阻带的带阻型。
- 信号波形的失真和延迟少。
- 完全无铅产品。

用途

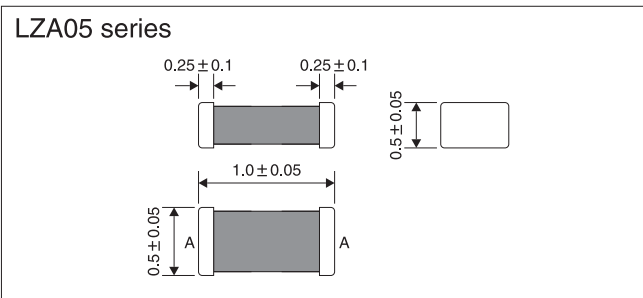
- 电视机、录像机、DVD等数字影像设备
- 移动电话、传真机、调制解调器、ADSL终端等信息通信设备
- 复印机、个人电脑、游戏机等数字设备
- 其它各种电子设备的降噪方案



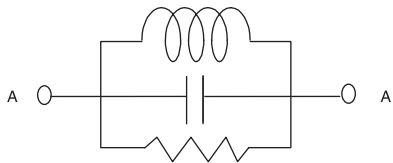
型号构成 Part number system



形状・尺寸(mm) Dimensions (mm)



等效电路 Equivalent circuits

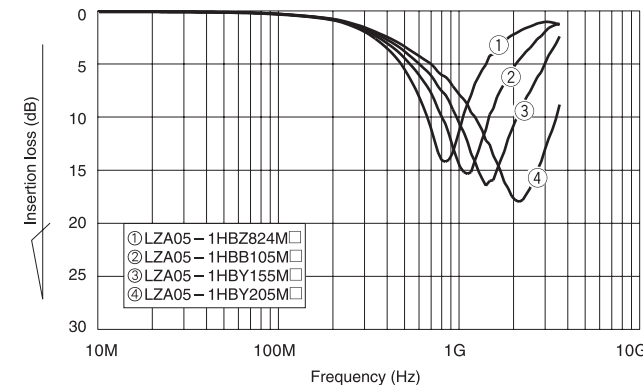


型号一览表 Part number list

型 号 Part number	中心频率 Center frequency	中心频率容许偏差 Center frequency tolerance	阻带 Rejected band width	最大衰减量 Max. insertion loss	额定电流 Rated current	使用温度范围 Operating Temp. range
LZA05-1HBZ824M□	820MHz	±20%	0.75dec	≥10dB	50mA	-25°C ~ +85°C
LZA05-1HBB105M□	1000MHz		1.0dec	≥10dB		
LZA05-1HBY155M□	1500MHz		1.25dec	≥10dB		
LZA05-1HBY205M□	2000MHz		1.25dec	≥10dB		

□: T表示带装, B表示散装
□: "T" stands for taping package and "B" stands for bulk package.

插入损失特性(参考) Insertion loss (Reference)



2 terminals chip type LC EMI filters LZA05 series are small-sized, band stop filters with a wide selection of rejected frequency band, and shows effective noise reduction for equipment and circuits with unstable ground. They are suitable for high frequency noise reduction on high-speed signal lines of digital video equipments and mobile devices.

Features

- Monolithic construction of dielectric and magnetic materials.
- Band stop filter with a choice of rejected frequency band.
- Little delay and distortion from original signal wave.
- Pb free products.

Applications

- For digital AV equipment such as TV,VCR and DVD.
- For telecommunication equipment such as cellular phone, FAX , modem and ADSL.
- For computer equipment such as personal computers and copier.
- For noise countermeasure of other digital circuit equipment.

LC复合EMI滤波器LZA10系列(双端子型)

CHIP TYPE LC EMI FILTER LZA10 SERIES(2 Terminals)

双端子型LC复合EMI滤波器LZA10系列是采用将电介质和磁介质复合并一体化烧结而成的材料生产的高性能EMI滤波器。本滤波器利用LC共振，频率适用范围宽，是带阻型EMI滤波器，备有可选择阻带的产品系列。即使对于接地不稳定的设备、电路，也能发挥稳定的降噪效果。最适合于数字影像设备、移动设备等高速信号线路的高频降噪。

特点

- 采用电介质和磁介质一体化的单片式结构。
- 可选择噪声阻带的带阻型。
- 信号波形的失真和延迟少。

用途

- 电视机、录像机、DVD等数字影像设备
- 移动电话、传真机、调制解调器、ADSL终端等信息通信设备
- 复印机、个人电脑、游戏机等数字设备
- 其它各种电子设备的降噪方案

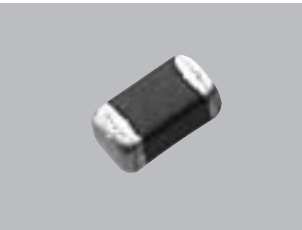
Our "LZA10" series 2 terminals chip type LC EMI filter is an extremely efficient EMI filter made of a combination of both dielectric and magnetic materials. Using LC resonance, this part works as a band stop filter with a wide selection of rejected frequency band, and shows effective noise reduction for equipment and circuits with unstable ground. Suitable for high frequency noise reduction on high-speed signal lines of digital video equipment and mobile devices.

Features

- Monolithic construction of dielectric and magnetic materials.
- Band stop filter with a choice of rejected frequency band.
- Little delay and distortion from original signal wave.

Applications

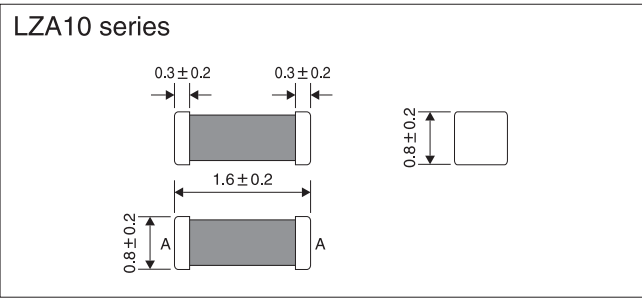
- For digital AV equipment such as TV, VCR and DVD.
- For telecommunication equipment such as cellular phone, FAX, modem and ADSL.
- For computer equipment such as personal computers and copier.
- For noise countermeasure of other digital circuit equipment.



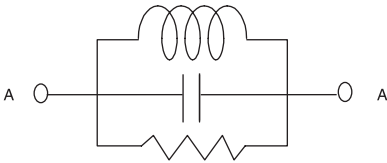
型号构成 Part number system

LZA	10	—	2A	C	B	104	M	T
系列名 Series	形状 Size 10 : 1.6 x 0.8mm (L) (W)	额定电流 Rated current 2A : 100mA	最大衰减量 Max. insertion loss C : ≧ 15dB D : ≧ 20dB	带阻 Rejected band width A : 0.5dec B : 1.0dec C : 1.5dec	中心频率 Center frequency	中心频率容许偏差 Center frequency tolerance M : ±20%	包装形式 Packing form T : 带装 Taping B : 散装 Bulk	

形状・尺寸(mm) Dimensions (mm)



等效电路 Equivalent circuits

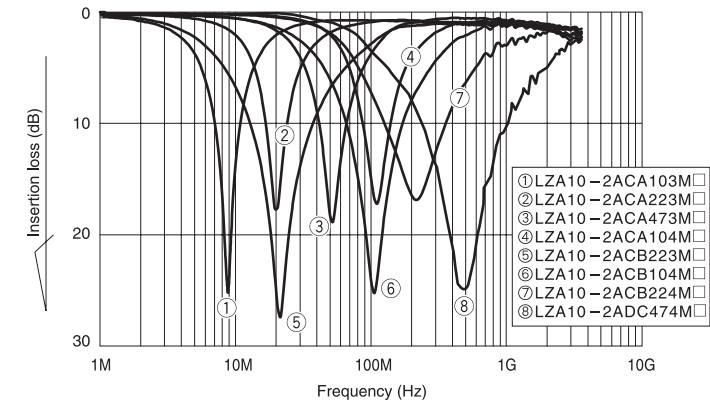


型号一览表 Part number list

型 号 Part number	中心频率 Center frequency	中心频率容许偏差 Center frequency tolerance	阻带 Rejected band width	最大衰减量 Max. insertion loss	额定电流 Rated current	使用温度范围 Operating Temp. range			
LZA10-2ACA103M□	10MHz	± 20%	0.5dec	≥ 15dB	100mA	-25℃ ~ +85℃			
LZA10-2ACA223M□	22MHz								
LZA10-2ACA473M□	47MHz								
LZA10-2ACA104M□	100MHz		1.0 dec	≥ 20dB					
LZA10-2ACB223M□	22MHz								
LZA10-2ACB104M□	100MHz								
LZA10-2ACB224M□	220MHz		1.5 dec						
LZA10-2ADC474M□	470MHz								

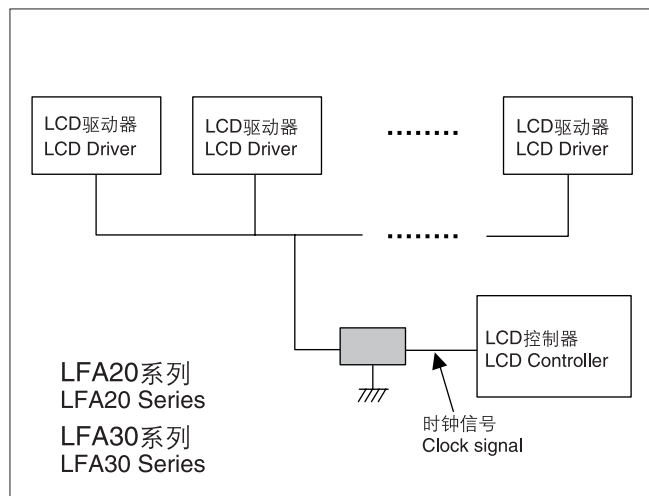
□: T表示带装、B表示散装 □: "T" stands for taping package and "B" stands for bulk package.

插入损失特性(参考) Insertion loss (Reference)



■时钟线的降噪方案

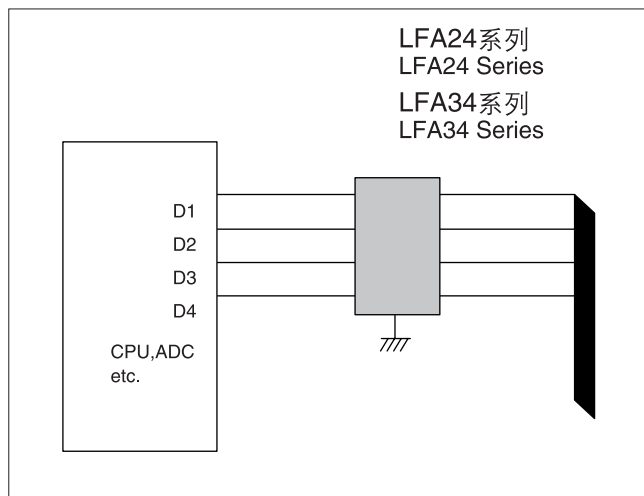
Clock line



液晶面板、各种数字设备
LCD panel, Digital Equipment

■数据线的降噪方案

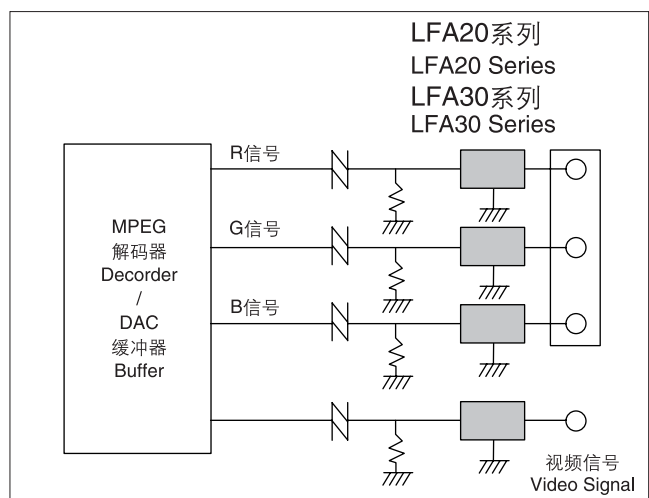
Data line



复印机、液晶面板、各种数字设备
Copier, LCDpanel, Digital Equipment

■视频线路的降噪方案

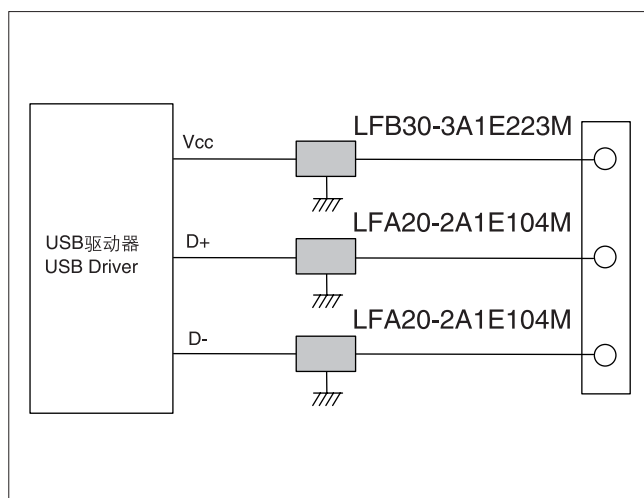
Video signal line



PC、数字电视、游戏机、车载导航设备
PC, Digital-TV, Game machine, Car-Navigation

■USB1.1的降噪方案

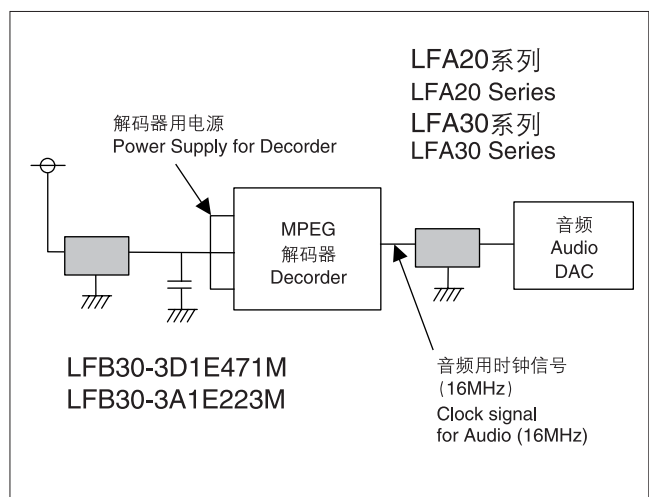
USB1.1



PC、PC外围设备
PC, PC Peripheral Equipment

■电源线路的降噪方案

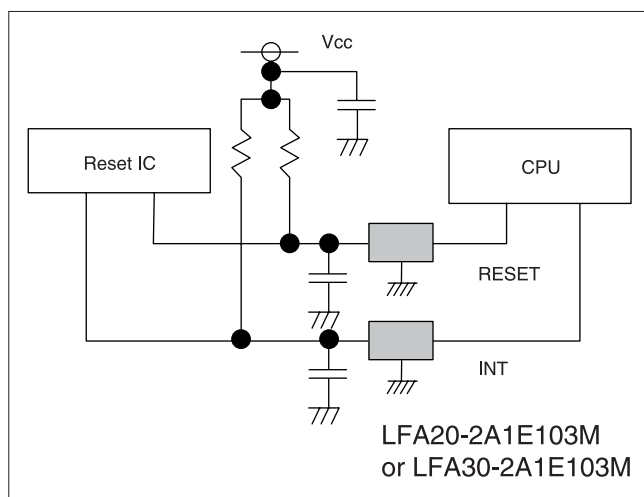
Power line



IC电源线
Vcc line for IC.

■EMS对策

EMS protect



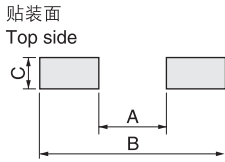
游戏机、各种使用微电脑的设备
Game machine, IC.

EMI滤波器 LFA、LFB、LFH、LZA系列 EMI FILTERS LFA, LFB, LFH, LZA SERIES

推荐焊盘布局 Recommended land pattern.
印刷电路板设计 Board design

1.LZA05, LZA10

回流焊接 Reflow soldering

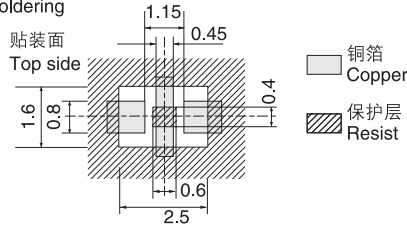


单位:mm
Unit:mm

型号 Type	LZA05	LZA10
形状 Size	1.0×0.5	1.6×0.8
A	0.4	0.7
B	1.4	2.0
C	0.5	0.7

2.LCA10, LFA10

回流焊接 Reflow soldering



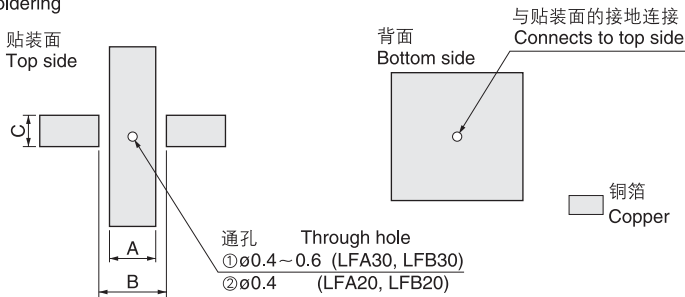
单位:mm
Unit:mm

型号 Type	LCA10	LFA10
形状 Size	1.6×0.8	1.6×0.8
A	1.15	1.15
B	0.45	0.45
C	1.6	1.6
D	0.8	0.8
E	2.5	2.5
F	0.6	0.6
G	0.4	0.4

① 建议经通孔连接到地线 (LFA10)
Connection to ground pattern via through hole recommended (LFA10)

3.LCA20, LFA20, LFB20, LFA30, LFB30

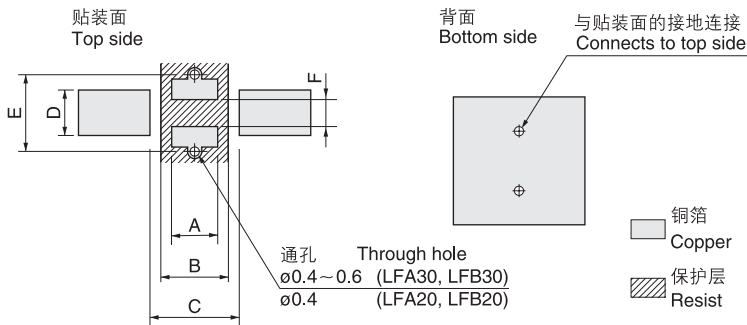
回流焊接 Reflow soldering



单位:mm
Unit:mm

型号 Type	LCA20	LFA20 LFB20	LFA30 LFB30
形状 Size	2.0×1.25	2.0×1.25	3.2×1.6
A	0.6	0.6	1.3
B	1.5	1.5	2.3
C	1.0	1.0	1.3

流动焊接 Flow soldering

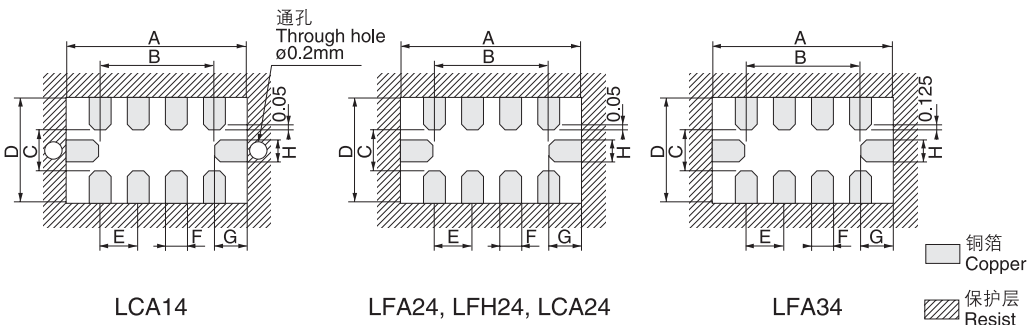


单位:mm
Unit:mm

型号 Type	LCA20	LFA20 LFB20	LFA30 LFB30
形状 Size	2.0×1.25	2.0×1.25	3.2×1.6
A	0.6	0.6	1.3
B	0.8	0.8	1.5
C	1.5	1.5	2.3
D	1.0	1.0	1.3
E	2.2	2.2	3.0
F	0.6	0.6	0.6

4.LCA14, LFA24, LFH24, LCA24, LFA34

回流焊接 Reflow soldering



单位:mm
Unit:mm

型号 Type	LCA14	LFA24 LCA24	LFH24	LFA34
形状 Size	1.6×0.8	2.0×1.25	2.0×1.0	3.2×1.6
A	2.2	2.6	2.6	3.8
B	1.2	1.5	1.5	2.5
C	0.5	0.75	0.63	0.9
D	1.4	1.85	1.73	2.6
E	0.4	0.5	0.5	0.8
F	0.15	0.25	0.25	0.45
G	0.5	0.55	0.55	0.65
H	0.15	0.23	0.23	0.45

音频信号线用滤波器 CMB12系列

Audio Line FILTER CMB12 SERIES

CMB12系列是小型、薄型的高性能滤波器，适用于移动电话及移动音响设备等
的音频信号线的降噪。采用全陶瓷结构，粘接强度高、贴装可靠性优异，特别
适用于便携式设备的音频信号线。

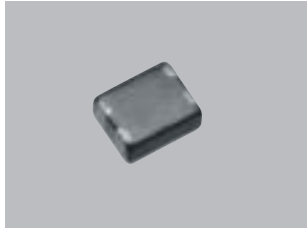
The audio line filter,CMB12 series, are small-sized and highly effective to
noise filtering for the audio lines for mobile phones and portable audio equip-
ments. It is suitable for audio lines of mobile equipments, because monolithic
construction of ceramic realizes excellent adherence strength of terminations
and high reliability in mounting.

规格

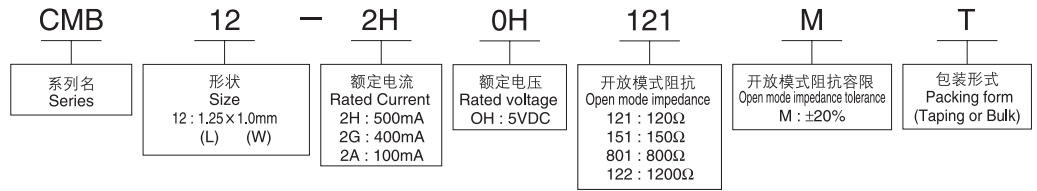
- 形状: 1210(1.25×1.0mm)
- 额定电流: 500mA, 400mA, 100mA
- 额定电压: 5V DC
- 开放模式阻抗: 120, 150, 800, 1200Ω

Specification

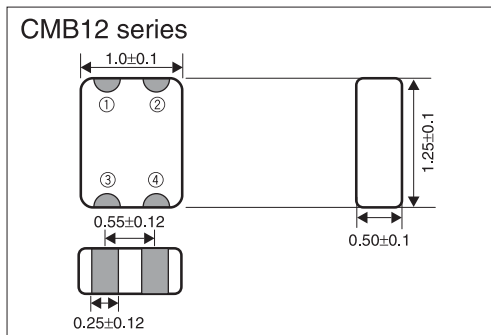
- Dimension: 1210(1.25×1.0mm)
- Rated current:100mA
- Open mode Impedance: 120,150,800,1200Ω
- Rated voltage: 5V DC



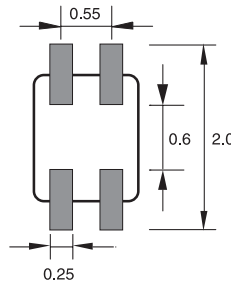
型号构成 Part number system



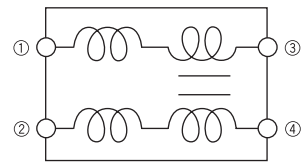
形状・尺寸(mm) Dimensions (mm)



推荐焊盘布局 Recommended Land Pattern



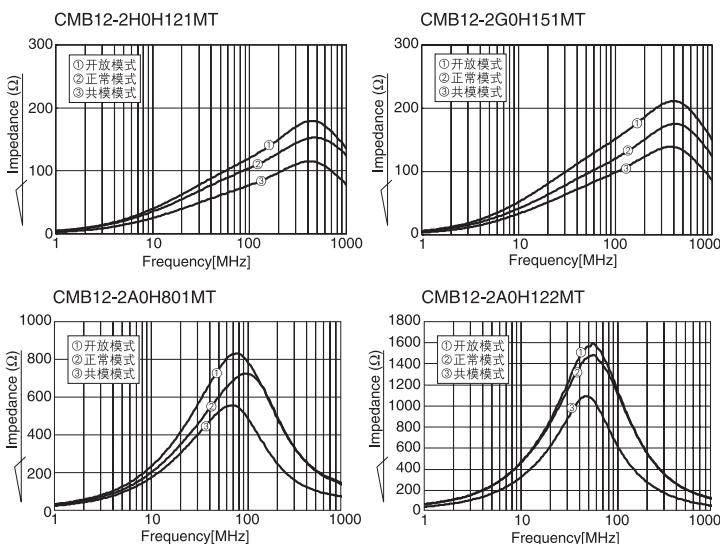
等效电路 Equivalent circuits



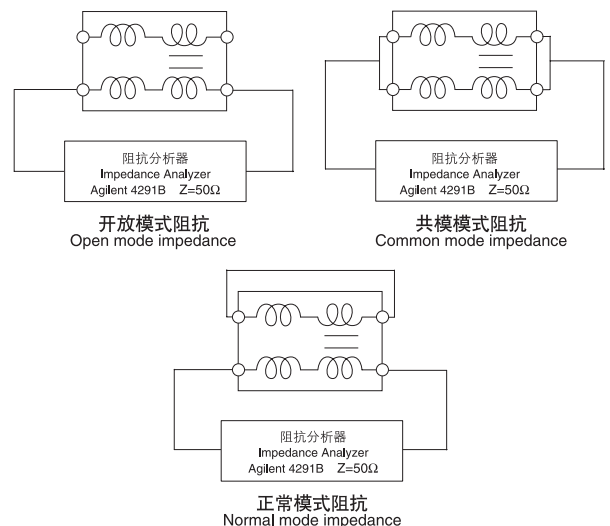
型号一览表 Part number list

型号 Part number	开放模式阻抗 Open mode impedance (Ω:100MHz)	额定电压 Rated voltage	额定电流 Rated current	绝缘电阻 Insulation Resistance
CMB12-2H0H121M	120Ω	5V	500mA	100MΩmin.
CMB12-2G0H151M	150Ω		400mA	
CMB12-2A0H801M	800Ω		100mA	
CMB12-2A0H122M	1200Ω			

阻抗特性(参考) Impedance Characteristics (Reference)



测量电路 Measuring Circuit


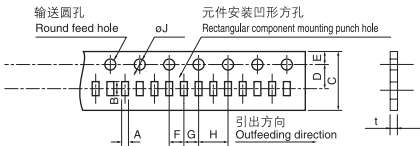
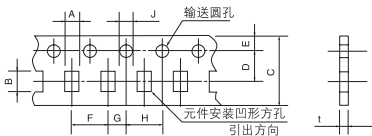
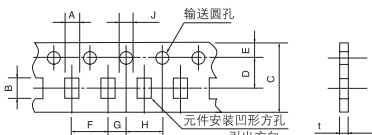
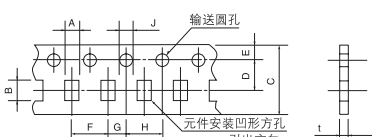
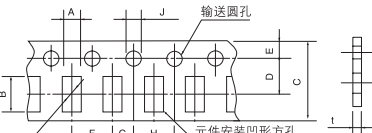
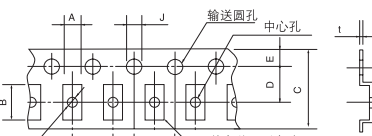
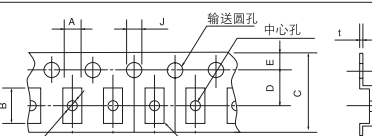
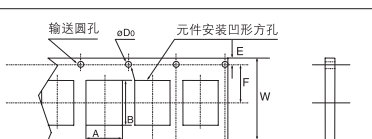
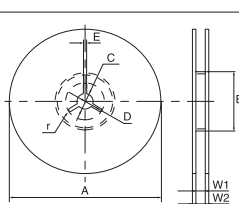


包装形式

PACKING FORM

EMI滤波器 EMI FILTERS

单位: mm
Unit: mm

包装记号 Packing code	对应系列 Related series	包装数量 Packing Qty.	包 装 形 式 Packing form																								
B	所有型号 All types	500	聚乙烯袋 Poly bag																								
T	LZA05	10,000		<table><tr><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td></tr><tr><td>0.62 ±0.10</td><td>1.15 ±0.10</td><td>8.0 ±0.3</td><td>3.50 ±0.05</td><td>1.75 ±0.10</td></tr><tr><td>F</td><td>G</td><td>H</td><td>J</td><td>t</td></tr><tr><td>2.0 ±0.1</td><td>2.00 ±0.05</td><td>4.0 ±0.1</td><td>ø1.5 +0.1 -0</td><td>0.8 以下 max</td></tr></table>	A	B	C	D	E	0.62 ±0.10	1.15 ±0.10	8.0 ±0.3	3.50 ±0.05	1.75 ±0.10	F	G	H	J	t	2.0 ±0.1	2.00 ±0.05	4.0 ±0.1	ø1.5 +0.1 -0	0.8 以下 max			
	A	B	C	D	E																						
	0.62 ±0.10	1.15 ±0.10	8.0 ±0.3	3.50 ±0.05	1.75 ±0.10																						
	F	G	H	J	t																						
	2.0 ±0.1	2.00 ±0.05	4.0 ±0.1	ø1.5 +0.1 -0	0.8 以下 max																						
	LCA10 LFA10 LCA14	4,000		<table><tr><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td></tr><tr><td>1.00 ±0.05</td><td>1.8 ±0.05</td><td>8.0 ±0.2</td><td>3.50 ±0.05</td><td>1.75 ±0.1</td></tr><tr><td>F</td><td>G</td><td>H</td><td>J</td><td>t</td></tr><tr><td>4.0 ±0.1</td><td>2.00 ±0.05</td><td>4.0 ±0.1</td><td>1.50^{+0.1}₋₀</td><td>0.7 ±0.1</td></tr></table>	A	B	C	D	E	1.00 ±0.05	1.8 ±0.05	8.0 ±0.2	3.50 ±0.05	1.75 ±0.1	F	G	H	J	t	4.0 ±0.1	2.00 ±0.05	4.0 ±0.1	1.50 ^{+0.1} ₋₀	0.7 ±0.1			
	A	B	C	D	E																						
1.00 ±0.05	1.8 ±0.05	8.0 ±0.2	3.50 ±0.05	1.75 ±0.1																							
F	G	H	J	t																							
4.0 ±0.1	2.00 ±0.05	4.0 ±0.1	1.50 ^{+0.1} ₋₀	0.7 ±0.1																							
LZA10	4,000		<table><tr><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td></tr><tr><td>0.95 ±0.2</td><td>1.8 ±0.2</td><td>8.0 ±0.3</td><td>3.50 ±0.05</td><td>1.75 ±0.1</td></tr><tr><td>F</td><td>G</td><td>H</td><td>J</td><td>t</td></tr><tr><td>4.0 ±0.1</td><td>2.00 ±0.05</td><td>4.0 ±0.1</td><td>1.50^{+0.1}₋₀</td><td>1.1以下</td></tr></table>	A	B	C	D	E	0.95 ±0.2	1.8 ±0.2	8.0 ±0.3	3.50 ±0.05	1.75 ±0.1	F	G	H	J	t	4.0 ±0.1	2.00 ±0.05	4.0 ±0.1	1.50 ^{+0.1} ₋₀	1.1以下				
A	B	C	D	E																							
0.95 ±0.2	1.8 ±0.2	8.0 ±0.3	3.50 ±0.05	1.75 ±0.1																							
F	G	H	J	t																							
4.0 ±0.1	2.00 ±0.05	4.0 ±0.1	1.50 ^{+0.1} ₋₀	1.1以下																							
LCA20 LFA20 LFB20 LFA24 LCA24	4,000		<table><tr><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td></tr><tr><td>1.62 ±0.2</td><td>2.4 ±0.2</td><td>8.0 ±0.3</td><td>3.5 ±0.05</td><td>1.75 ±0.1</td></tr><tr><td>F</td><td>G</td><td>H</td><td>J</td><td>t</td></tr><tr><td>4.0 ±0.1</td><td>2.0 ±0.05</td><td>4.0 ±0.1</td><td>1.50^{+0.1}₋₀</td><td>1.05 ±0.1</td></tr></table>	A	B	C	D	E	1.62 ±0.2	2.4 ±0.2	8.0 ±0.3	3.5 ±0.05	1.75 ±0.1	F	G	H	J	t	4.0 ±0.1	2.0 ±0.05	4.0 ±0.1	1.50 ^{+0.1} ₋₀	1.05 ±0.1				
A	B	C	D	E																							
1.62 ±0.2	2.4 ±0.2	8.0 ±0.3	3.5 ±0.05	1.75 ±0.1																							
F	G	H	J	t																							
4.0 ±0.1	2.0 ±0.05	4.0 ±0.1	1.50 ^{+0.1} ₋₀	1.05 ±0.1																							
LFH24	4,000		<table><tr><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td></tr><tr><td>1.20 ±0.08</td><td>2.20 ±0.08</td><td>8.0 ±0.2</td><td>3.50 ±0.05</td><td>1.75 ±0.10</td></tr><tr><td>F</td><td>G</td><td>H</td><td>J</td><td>t</td></tr><tr><td>4.0 ±0.1</td><td>2.00 ±0.05</td><td>4.0 ±0.1</td><td>1.50^{+0.1}₋₀</td><td>1.00 ±0.10</td></tr></table>	A	B	C	D	E	1.20 ±0.08	2.20 ±0.08	8.0 ±0.2	3.50 ±0.05	1.75 ±0.10	F	G	H	J	t	4.0 ±0.1	2.00 ±0.05	4.0 ±0.1	1.50 ^{+0.1} ₋₀	1.00 ±0.10				
A	B	C	D	E																							
1.20 ±0.08	2.20 ±0.08	8.0 ±0.2	3.50 ±0.05	1.75 ±0.10																							
F	G	H	J	t																							
4.0 ±0.1	2.00 ±0.05	4.0 ±0.1	1.50 ^{+0.1} ₋₀	1.00 ±0.10																							
LFA30 LFB30	2,000		<table><tr><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td><td>F</td></tr><tr><td>1.9 ±0.2</td><td>3.5 ±0.2</td><td>8.0 ±0.3</td><td>3.5 ±0.05</td><td>1.75 ±0.1</td><td>4.0 ±0.1</td></tr><tr><td>G</td><td>H</td><td>J</td><td>K</td><td>t</td><td>Q</td></tr><tr><td>2.0 ±0.05</td><td>4.0 ±0.1</td><td>1.55 ±0.1</td><td>1.20 ±0.2</td><td>0.25 ±0.05</td><td>1.15 ±0.05</td></tr></table>	A	B	C	D	E	F	1.9 ±0.2	3.5 ±0.2	8.0 ±0.3	3.5 ±0.05	1.75 ±0.1	4.0 ±0.1	G	H	J	K	t	Q	2.0 ±0.05	4.0 ±0.1	1.55 ±0.1	1.20 ±0.2	0.25 ±0.05	1.15 ±0.05
A	B	C	D	E	F																						
1.9 ±0.2	3.5 ±0.2	8.0 ±0.3	3.5 ±0.05	1.75 ±0.1	4.0 ±0.1																						
G	H	J	K	t	Q																						
2.0 ±0.05	4.0 ±0.1	1.55 ±0.1	1.20 ±0.2	0.25 ±0.05	1.15 ±0.05																						
LFA34	2,000		<table><tr><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td><td>F</td></tr><tr><td>1.9 ±0.2</td><td>3.5 ±0.2</td><td>8.0 ±0.3</td><td>3.5 ±0.05</td><td>1.75 ±0.1</td><td>4.0 ±0.1</td></tr><tr><td>G</td><td>H</td><td>J</td><td>K</td><td>t</td><td>Q</td></tr><tr><td>2.0 ±0.05</td><td>4.0 ±0.1</td><td>1.50^{+0.1}₋₀</td><td>1.0 ±0.2</td><td>0.25 ±0.05</td><td>1.0^{+0.1}₋₀</td></tr></table>	A	B	C	D	E	F	1.9 ±0.2	3.5 ±0.2	8.0 ±0.3	3.5 ±0.05	1.75 ±0.1	4.0 ±0.1	G	H	J	K	t	Q	2.0 ±0.05	4.0 ±0.1	1.50 ^{+0.1} ₋₀	1.0 ±0.2	0.25 ±0.05	1.0 ^{+0.1} ₋₀
A	B	C	D	E	F																						
1.9 ±0.2	3.5 ±0.2	8.0 ±0.3	3.5 ±0.05	1.75 ±0.1	4.0 ±0.1																						
G	H	J	K	t	Q																						
2.0 ±0.05	4.0 ±0.1	1.50 ^{+0.1} ₋₀	1.0 ±0.2	0.25 ±0.05	1.0 ^{+0.1} ₋₀																						
CMB12	4,000		<table><tr><td>A</td><td>B</td><td>W</td><td>F</td><td>E</td></tr><tr><td>1.20 ±0.2</td><td>1.45 ±0.05</td><td>8.0 ±0.2</td><td>3.50 ±0.05</td><td>1.75 ±0.10</td></tr><tr><td>P₁</td><td>P₂</td><td>P₀</td><td>D₀</td><td>T</td></tr><tr><td>4.0 ±0.1</td><td>2.00 ±0.05</td><td>4.0 ±0.1</td><td>ø1.5^{+0.1}₋₀</td><td>0.68 ±0.05</td></tr></table>	A	B	W	F	E	1.20 ±0.2	1.45 ±0.05	8.0 ±0.2	3.50 ±0.05	1.75 ±0.10	P ₁	P ₂	P ₀	D ₀	T	4.0 ±0.1	2.00 ±0.05	4.0 ±0.1	ø1.5 ^{+0.1} ₋₀	0.68 ±0.05				
A	B	W	F	E																							
1.20 ±0.2	1.45 ±0.05	8.0 ±0.2	3.50 ±0.05	1.75 ±0.10																							
P ₁	P ₂	P ₀	D ₀	T																							
4.0 ±0.1	2.00 ±0.05	4.0 ±0.1	ø1.5 ^{+0.1} ₋₀	0.68 ±0.05																							
所有型号 All types			<table><tr><th>记号Code</th><th>A</th><th>B</th><th>C</th><th>D</th><th>E</th><th>W₁</th><th>W₂</th><th>r</th></tr><tr><td>RRM08B</td><td>ø180.0⁺⁰₋₃</td><td>ø60⁺¹₋₀</td><td>ø13.0 ±0.2</td><td>R10.5 ±0.4</td><td>2.0 ±0.5</td><td>9.0 ±0.3</td><td>11.4 ±1.0</td><td>0.5</td></tr></table>	记号Code	A	B	C	D	E	W ₁	W ₂	r	RRM08B	ø180.0 ⁺⁰ ₋₃	ø60 ⁺¹ ₋₀	ø13.0 ±0.2	R10.5 ±0.4	2.0 ±0.5	9.0 ±0.3	11.4 ±1.0	0.5						
记号Code	A	B	C	D	E	W ₁	W ₂	r																			
RRM08B	ø180.0 ⁺⁰ ₋₃	ø60 ⁺¹ ₋₀	ø13.0 ±0.2	R10.5 ±0.4	2.0 ±0.5	9.0 ±0.3	11.4 ±1.0	0.5																			

EMI滤波器
EMI FILTER