# • Multilayer Ferrite / Ceramic Chip Beads/ Inductors

# Contents

Туре		Application	D im en sio ns	Availab le Range	Av ailab le Materials	Page
		G eneral Circuit	1 <i>6</i> 0808 (0 <i>6</i> 03)	30~2000Ω		
	FAM		201 209 (0805)	10~2700Ω	N1 N2 N4 N5	
			321611 (1206)	26~2000 Ω		
			321616 (1206)	50~2000Ω		
			322513 (1210)	52~2000Ω		
			451616 (1806)	80~2000Ω		
			453215 (1812)	120~2000Ω		
	FBM	High Frequency	160808 (0603)	5~600Ω	. из	
			201209 (0805)	5~1000Ω		
	FPM	High Current	160808 (0603)	10~25Ω		
MultiLayer Ferrite Chip Beads			201209 (0805)	10~220Ω	N1 N2 N3	
			321611 (1206)	30~120Ω		
			451616 (1806)	50~120Ω		
			453215 (1812)	70~120Ω		
	FRM	Low Speed	160808 (0603)	80~600Ω		
			201209 (0805)	80~600Ω	S2	
			321611 (1206)	26~600Ω		
	FLM Medium Curr	Madium Cumant	160808 (0603)	30~1000Ω	N1 N2 N4	
		Medium Current	201209 (0805)	30~1500Ω	141 142 144	
	FBA4	M ulti-line	321611 (1206)	30~1000Ω	N2 N3	
	FHM	High Speed	201209 (0805)	26~600Ω	<b>S</b> 3	
Multilayer Ferrite Chip Inductors	FLL	G eneral Circuit	160808 (0603)	0.047~2.7uH	-	
			201209 (0805)	0.047~10uH		
			321611 (1206)	0.047~39uH		
Multilayer Ceramic Chip Inductors			100505 (0402)	1.0~120nH		
	CHL	High Frequency	160808 (0603)	1.2~220nH	-	
			201209 (0805)	1.5~680nH		

#### **Classifications**

**FAM Type:** designed for general-purpose applications with wide range of impedance.

**FBM Type:** designed for high frequency applications. This type minimizes attenuation of the signal waveform by its sharp impedance characteristics.

**FPM Type:** designed for high current applications, which is suitable for noise near power lines.

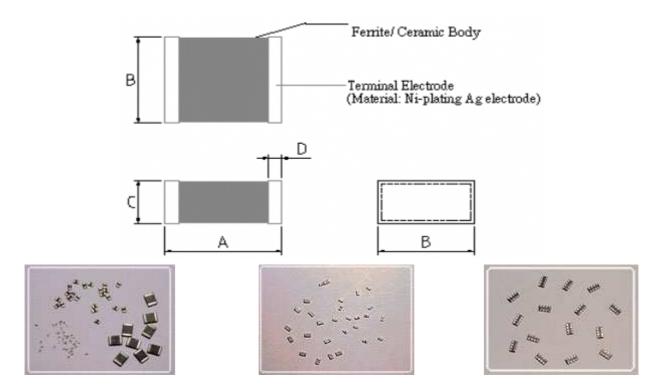
FRM Type: designed for low frequency applications with higher impedance at low frequency.

**FLM Type:** designed for high current signal lines applications with low DC resistance across a wide range of impedances. The current capacity is between FAM and FPM type.

**FHM Type:** designed for high-speed applications that used for noise suppression at frequencies higher than the FBM Type.

FBA4 Type: designed for multi-line applications that need high-density packaging of electric circuits.

#### **Shape & Dimensions**



## **Chip Beads/ Inductors**

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D im ensions	A	В	С	D
100505 (0402)	1.00±0.10	0.50±0.10	0.50±0.10	0.25±0.10
	(0.040±0.004)	(0.020±0.004)	(0.020±0.004)	(0.010±0.004)
160808 (0603)	1.60±0.20	0.80±0.20	0.80±0.20	0.30±0.20
	(0.063±0.008)	(0.031±0.008)	(0.031±0.008)	(0.012±0.008)
201209 (0805)	2.00±0.20	1.20±0.20	0.90±0.20	0.50±0.30
	(0.079±0.008)	(0.047±0.008)	(0.035±0.008)	(0.020±0.012)
321611 (1206)	3.20±0.20	1.60±0.20	1.10±0.20	0.50±0.30
321011 (1200)	(0.126±0.008)	(0.063±0.008)	(0.043±0.008)	(0.020±0.012)
221616 (1206)	3.20±0.20	1.60±0.20	1.60±0.20	0.50±0.30
321616 (1206)	(0.126±0.008)	(0.063±0.008)	(0.063±0.008)	(0.020±0.012)
322513 (1210)	3.20±0.20	2.50±0.20	1.30±0.20	0.50±0.30
	(0.126±0.008)	(0.098±0.008)	(0.051±0.008)	(0.020±0.012)
451616 (1806)	4.50±0.20	1.60±0.20	1.60±0.20	0.50±0.30
	(0.177±0.008)	(0.063±0.008)	(0.063±0.008)	(0.020±0.012)
453215 (1812)	4.50±0.20	3.20±0.20	1.50±0.20	0.50±0.30
	(0.177±0.008)	(0.126±0.008)	(0.059±0.008)	(0.020±0.012)

## **Beads Array**

L	W	T	$C_1$	C,	D	M
3.20±0.20	1.60±0.20	0.80±0.10	0.40±0.15	0.20~0.45	0.80±0.10	0.20±0.10
(0.126±0.008)	(0.063±0.008)	(0.031±0.004)	(0.016±0.006)	(0.008~0.018)	(0.031±0.004)	(0.008±0.004)

## **Product Applicable Frequency Overview**

