

# SMD Multilayer Ferrite Chip Beads – GMLB-201209 BK Series

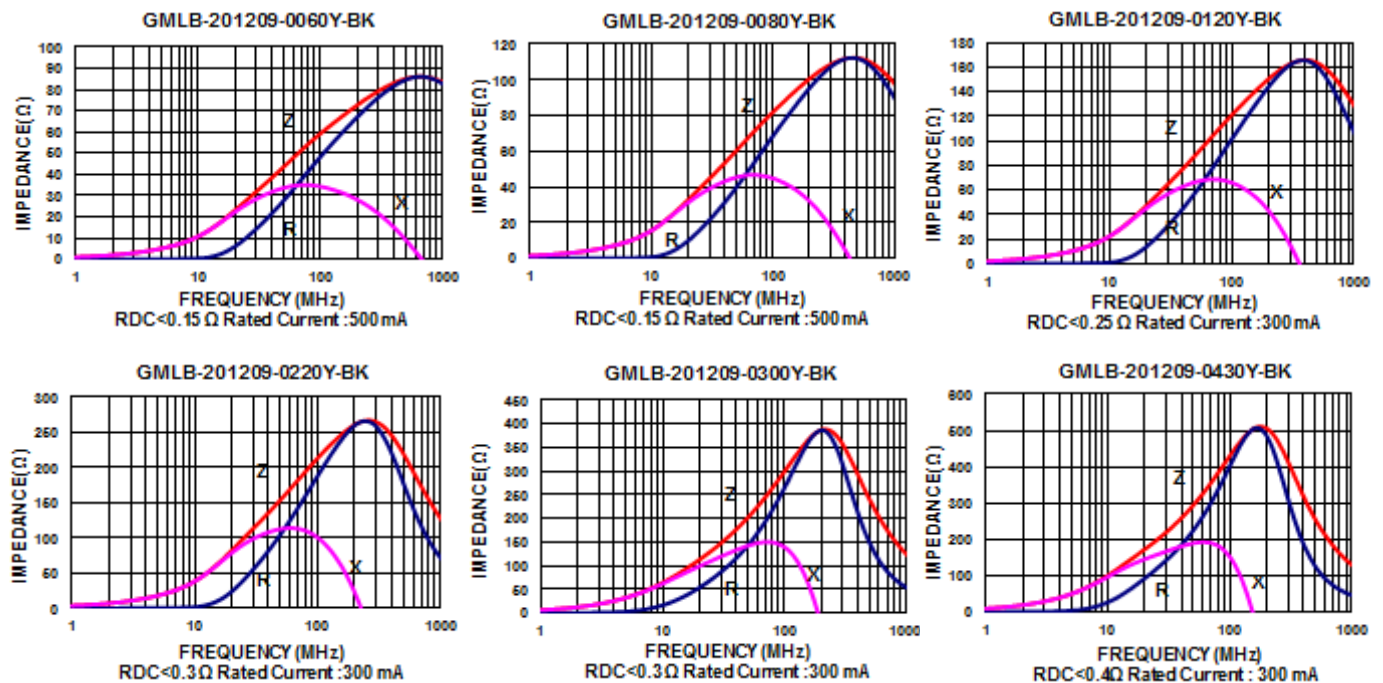
## Electrical Characteristics

Part Number	Impedance ( $\Omega \pm 25\%$ )	Test Frequency (MHz)	DC Resistance ( $\Omega$ ) Max	Rated current (mA) Max
GMLB-201209-0060Y-BK	60	100	0.15	500
GMLB-201209-0080Y-BK	80	100	0.15	500
GMLB-201209-0120Y-BK	120	100	0.25	300
GMLB-201209-0220Y-BK	220	100	0.30	300
GMLB-201209-0300Y-BK	300	100	0.30	300
GMLB-201209-0430Y-BK	430	100	0.40	300
GMLB-201209-0470Y-BK	470	100	0.40	300
GMLB-201209-0600Y-BK	600	100	0.40	300
GMLB-201209-1000Y-BK	1000	100	0.50	200
GMLB-201209-1200Y-BK	1200	100	0.60	200
GMLB-201209-1500Y-BK	1500	100	0.60	200
GMLB-201209-2000Y-BK	2000	100	0.70	200
GMLB-201209-2200Y-BK	2200	100	0.70	200
GMLB-201209-2500Y-BK	2500	100	0.70	200
GMLB-201209-2700Y-BK	2700	100	0.70	200

**Note:** When ordering, please specify tolerance code. Tolerance : Y $\pm 25\%$

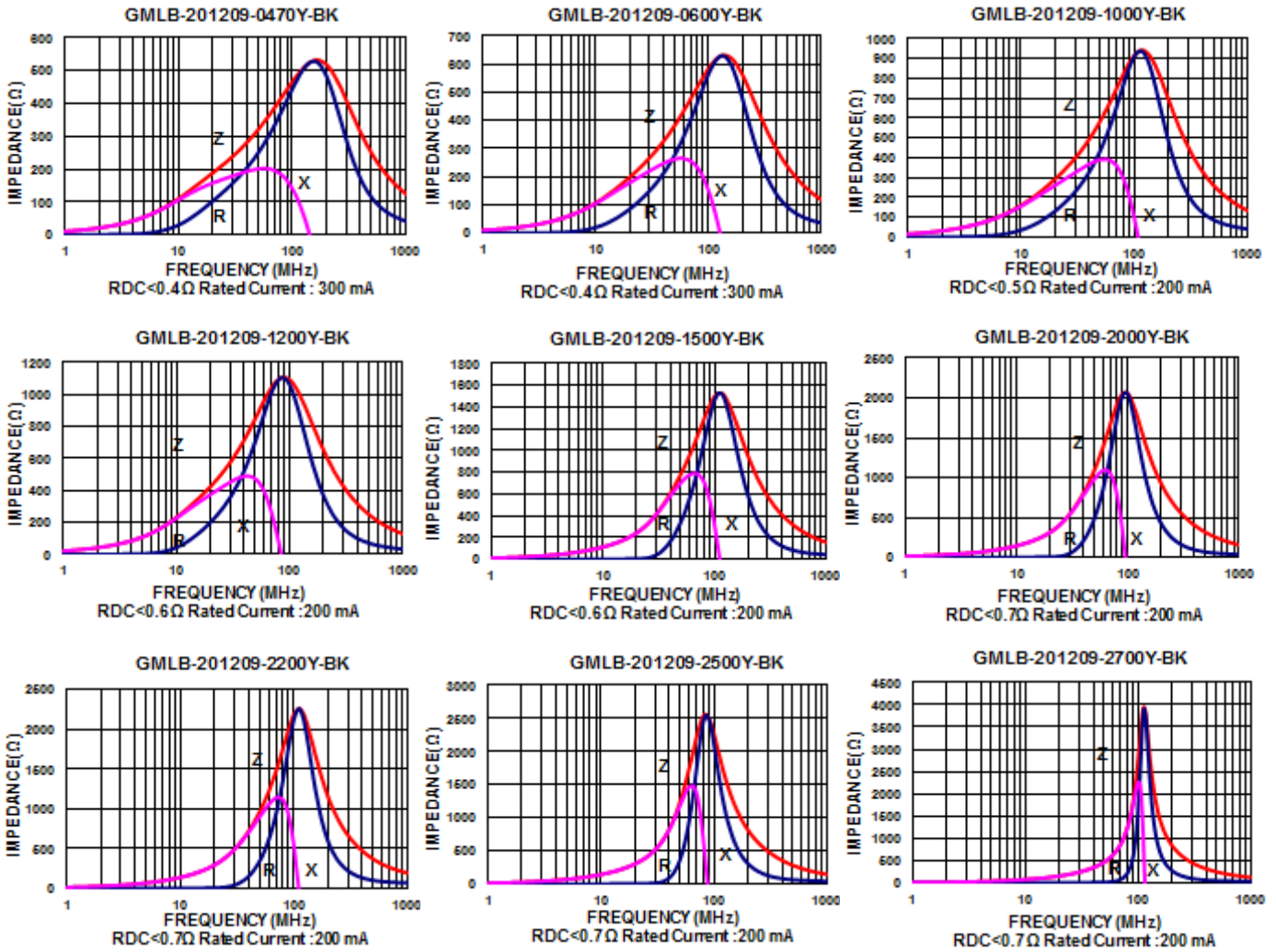
- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Rate Current : Applied the current to coils, the temperature rise shall not be more than 30°C
- Measure Equipment :  
Z : HP4291A  
RDC : HP4338B or CHEN HWA 502

**Test Instruments :** Agilent E4991A Impedance / Material Analyzer



# SMD Multilayer Ferrite Chip Beads – GMLB-201209 BK Series

Test Instruments : Agilent E4991A Impedance / Material Analyzer



Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Mag.Layers approval. Please contact our sales department before ordering.

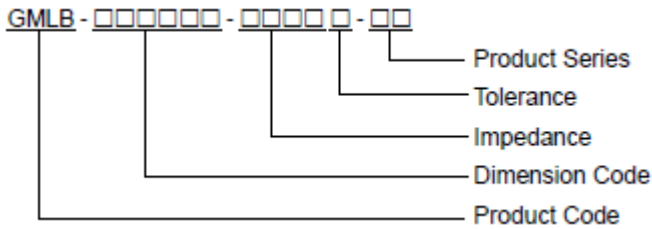
## Multilayer Ferrite Chip Beads



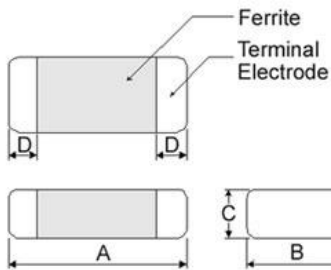
Mag.Layers offers a wide range of multi-layered ferrite chip beads with various sizes, frequency characteristics, and impedance values for EMI solutions.

These ferrite formulas are used to compose seven types of EMI suppression chip beads: SY, BK, SJ, GK, PY, UP, NQ, FY, FJ and HV series.

### Product Identification



### Shape and Dimensions



Dimensions in mm

TYPE	A	B	C	D
①060303	0.6±0.03	0.30±0.03	0.3±0.03	0.15±0.05
②100505	1.0±0.10	0.50±0.10	0.5±0.10	0.25±0.10
③160805	1.6±0.15	0.80±0.15	0.5±0.15	0.3±0.2
④160808	1.6±0.15	0.80±0.15	0.8±0.15	0.3±0.2
⑤201209	2.0±0.20	1.25±0.20	0.9±0.20	0.5±0.3
⑥321611	3.2±0.20	1.60±0.20	1.1±0.20	0.5±0.3

① : SY / SJ / NQ / PY

② : SY / SJ / NQ / PY / UP / FY / FJ

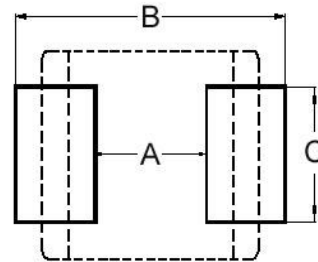
③ : UP ④ : BK / SJ / GK / PY / NQ / UP / HV

⑤ : BK / GK / PY / UP ⑥ : SY / BK / PY / UP

### Dimension Conversion

Code	Dimension in mm (AxBxC)	EIA
060303	0.6x0.3x0.3	0201
100505	1.0x0.5x0.5	0402
160805	1.6x0.8x0.5	0603
160808	1.6x0.8x0.8	0603
201209	2.0x1.2x0.9	0805
321611	3.2x1.6x1.1	1206

### Recommended Pattern



Dimensions in mm

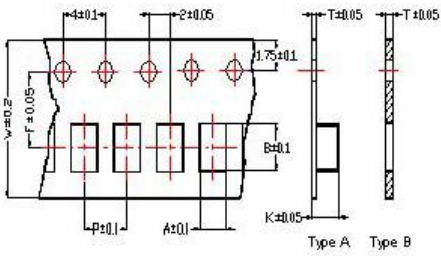
TYPE	A	B	C
①060303	0.2 ~ 0.3	0.75 ~ 1.05	0.3
②100505	0.4	1.2 ~ 1.4	0.5
③160805	0.7 ~ 0.8	1.8 ~ 2.0	0.6 ~ 0.8
④160808	0.7 ~ 0.8	1.8 ~ 2.0	0.6 ~ 0.8
⑤201209	1.0 ~ 1.2	2.6 ~ 4.0	1.0 ~ 1.2
⑥321611	2.0	4.2 ~ 5.2	1.2

\* Don't apply narrower pattern than listed above to PY and UP  
Narrow pattern might cause excessive heat or open circuit.

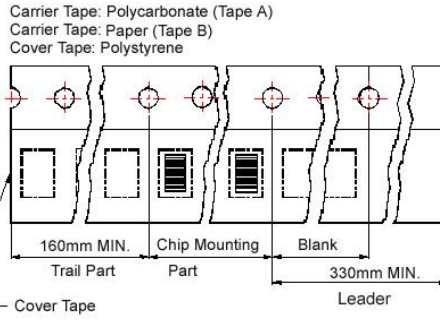
# SMD Multilayer Ferrite Chip Beads

## Packaging Specifications

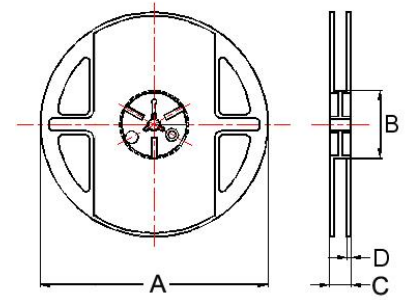
### Tape Dimensions



### Tape Material



### Reel Dimensions



- ① : SY/SJ/NQ/PY    ③ : UP
- ② : SY/SJ/NQ/PY/UP/FY/FJ
- ④ : BK/SJ/GK/PY/NQ/UP/HV
- ⑤ : BK/GK/PY/UP
- ⑥ : SY/BK/PY/UP
- ⑦ : PY/UP

### Dimensions in mm

TYPE	Tape Dimensions								Reel Dimensions				Quantity PCS / REEL
	A	B	T	W	P	F	K	Tape	A	B	C	D	
①060303	0.37	0.67	0.42	8.0	2.0	3.5	-	B	178	60	10	1.5	15000
②100505	0.62	1.12	0.60	8.0	2.0	3.5	-	B	178	60	12	1.5	10000
③160805	1.05	1.85	0.60	8.0	4.0	3.5	-	B	178	60	12	1.5	4000
④160808	1.05	1.85	0.95	8.0	4.0	3.5	-	B	178	60	12	1.5	4000
⑤201209	1.50	2.30	0.97	8.0	4.0	3.5	-	B	178	60	12	1.5	4000
⑥321611	1.88	3.50	0.22	8.0	4.0	3.5	1.27	A	178	60	12	1.5	3000
⑦453215	3.66	4.95	0.24	12	8.0	5.5	1.85	A	178	60	16	1.4	1000