

SMD Multilayer Ferrite Chip Beads – GMLB-201209 UP Series

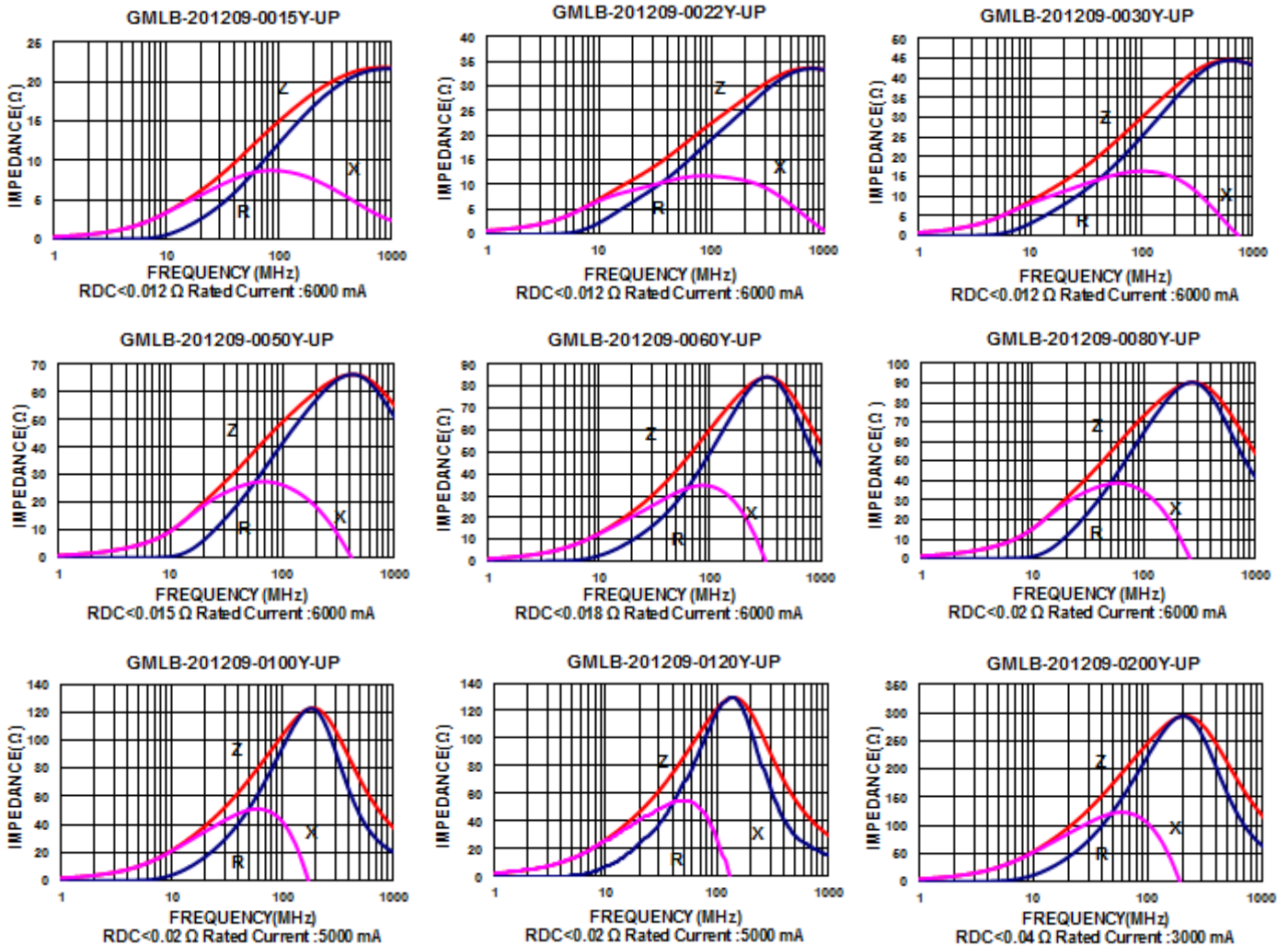
Electrical Characteristics

Part Number	Impedance ($\Omega \pm 25\%$)	Test Frequency (MHz)	RDC (Ω) Max	Rated current (mA) Max
GMLB-201209-0015Y-UP	15	100	0.012	6000
GMLB-201209-0022Y-UP	22	100	0.012	6000
GMLB-201209-0030Y-UP	30	100	0.012	6000
GMLB-201209-0050Y-UP	50	100	0.015	6000
GMLB-201209-0060Y-UP	60	100	0.018	6000
GMLB-201209-0080Y-UP	80	100	0.02	6000
GMLB-201209-0100Y-UP	100	100	0.02	5000
GMLB-201209-0120Y-UP	120	100	0.02	5000
GMLB-201209-0200Y-UP	200	100	0.04	3000
GMLB-201209-0220Y-UP	220	100	0.04	3000
GMLB-201209-0300Y-UP	300	100	0.05	3000
GMLB-201209-0330Y-UP	330	100	0.05	3000

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

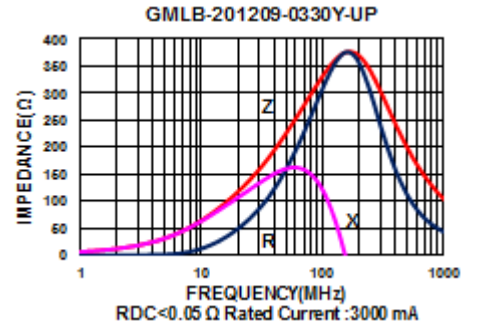
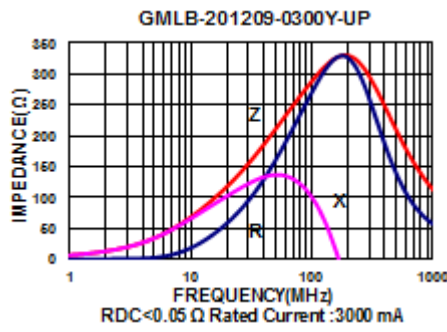
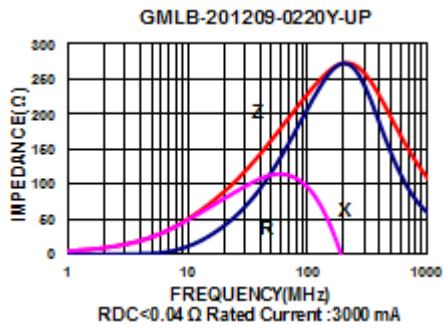
- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Rate Current : Applied the current to coils, the temperature rise shall not be more than 30°C
- Measure Equipment :
Z : HP4291A
RDC : HP4338B or CHEN HWA 502

Test Instruments : Agilent E4991A Impedance / Material Analyzer



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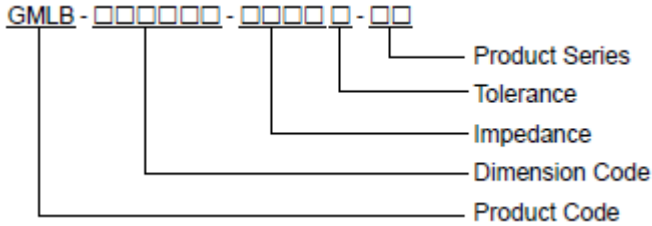
Multilayer Ferrite Chip Beads



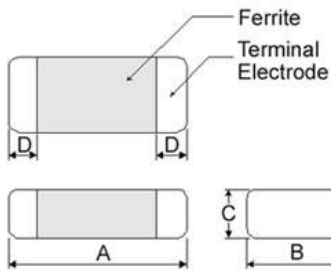
Mag.Layers offers a wide range of multi-layered ferrite chip beads with various sizes, frequency characteristics, and impedance values for EMI solutions.

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

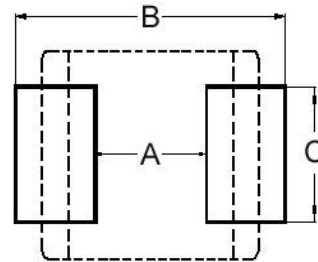
③ : UP ④ : BK / SJ / GK / PY / NQ / UP / HV

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

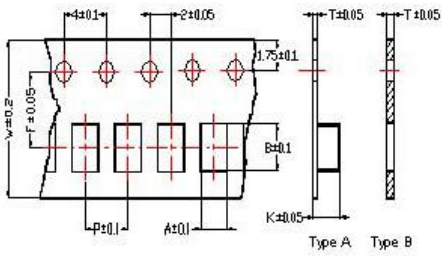
TYPE	A	B	C
①060303	0.2 ~ 0.3	0.75 ~ 1.05	0.3
②100505	0.4	1.2 ~ 1.4	0.5
③160805	0.7 ~ 0.8	1.8 ~ 2.0	0.6 ~ 0.8
④160808	0.7 ~ 0.8	1.8 ~ 2.0	0.6 ~ 0.8
⑤201209	1.0 ~ 1.2	2.6 ~ 4.0	1.0 ~ 1.2
⑥321611	2.0	4.2 ~ 5.2	1.2

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

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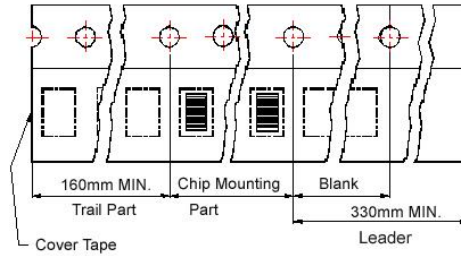
Packaging Specifications

Tape Dimensions

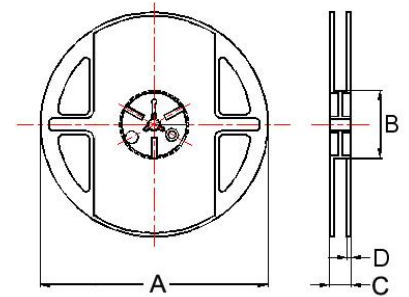


Tape Material

Carrier Tape: Polycarbonate (Tape A)
Carrier Tape: Paper (Tape B)
Cover Tape: Polystyrene



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