



FB2012209 (0805) Series – SMD MULTILAYER FERRITE CHIP BEADS (HIGH IMPEDANCE)

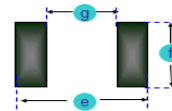
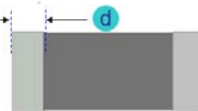
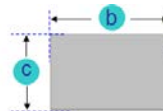
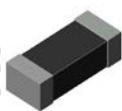
Rev. A

A. Electrical Specifications:

P/N	Impedance (Ω) $\pm 25\%$ @100MHz	DCR Max.(Ω)	I rms. Max. (mA)
FB201209Z100	10	0.10	800
FB201209Z300	30	0.10	800
FB201209Z600	60	0.10	900
FB201209Z800	80	0.15	600
FB201209Z121	120	0.15	600
FB201209Z221	220	0.20	700
FB201209Z301	300	0.25	700
FB201209Z601	600	0.35	500
FB201209Z102	1000	0.50	500
FB201209U100	10	0.10	800
FB201209U110	11	0.10	900
FB201209U300	30	0.10	600
FB201209U600	60	0.10	800
FB201209U800	80	0.10	800
FB201209U121	120	0.10	800
FB201209U221	220	0.20	500
FB201209U301	300	0.20	500
FB201209U601	600	0.30	500
FB201209U102	1000	0.45	500
FB201209G070	7	0.10	800
FB201209G310	31	0.10	800
FB201209G600	60	0.15	700
FB201209G800	80	0.20	500
FB201209G121	120	0.20	600
FB201209G221	220	0.20	500
FB201209G301	300	0.25	500
FB201209G601	600	0.45	300
FB201209G102	1000	0.45	300
FB201209G152	1500	0.45	400
FB201209G202	2000	0.60	300
FB201209G222	2200	0.60	300
FB201209G252	2500	0.60	300
FB201209G272	2700	0.65	300
FB201209B070	7	0.15	600
FB201209B300	30	0.15	600
FB201209B600	60	0.20	300
FB201209B121	120	0.25	300
FB201209B221	220	0.35	300
FB201209B301	300	0.40	300
FB201209B601	600	0.50	300
FB201209B102	1000	0.60	300

B. Dimensions: mm (Inch)

Series	a	b	c	d	e	f	g
FB201209	2.0 (0.079)	1.2 (0.047)	0.9 (0.035)	0.5 (0.020)	3.20 (0.126)	1.50 (0.059)	0.60 (0.024)
Tol.	± 0.2 (0.008)	± 0.2 (0.008)	± 0.2 (0.008)	± 0.3 (0.012)	Typ.	Typ.	Typ.



C. Part Number Key:

FB **20** **12** **09** **Y** **XXX**

IMPEDANCE VALUE

MATERIAL CODE: L, U, Z, B or G

DIMENSIONS:
LENGTH (a) x WIDTH (b) x THICKNESS (c)

FAMILY: FB



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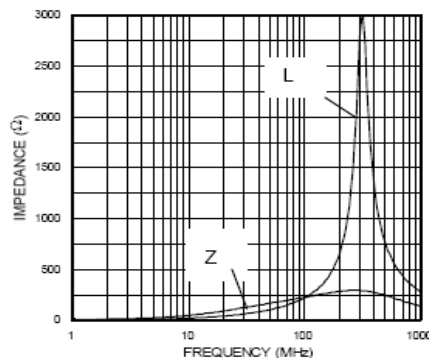
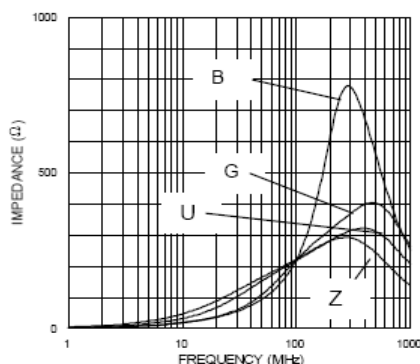
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D. Materials:

ITEM	UNIT	Material Code				
		L	B	G	U	Z
Initial Permeability (μ_{iac}):	----	25	45	110	200	500
Maximum Permeability (μ_m):	----	125	125	250	450	900
Saturation Flux Density at 10 Oe:	Gauss	2000	2000	1700	1400	1500
Curie Temperature(T_c):	°C	>200	>200	>130	>100	>130
Volume Resistivity (ρ):	Ω -m	100000	100000	100000	100000	100000
Temperature Coefficient:	1/10000°C	10	10	13	5	12
Density:	g/cm ³	4.8	4.8	4.8	4.8	4.8

E. Impedance Characteristics of Materials:

- Z Material is for applications whose blocking regions are near 100 MHz.
- L Material, an improvement of B Material has sharp impedance characteristic at high frequency.
- G Material is for application whose signal frequency is far from the cut off region. Suitable for application requires low insertion loss at high frequency.
- Different materials are available for different application range.
- With one material, higher impedance has sharper characteristics.
- Please confirm the signal wave form to choose suitable products.



C. General Information

- FB201209-yxxx, "FB201209" = P/N, "y" = Material, "xxx" = Impedance.
- Tolerance: $\pm 25\%$
- Small and lightweight surface mounting type.
- Dimensions are suitable for automatic mounting
- High-density packaging with a pitch of 2.54 mm (0.1 inch) max. is possible. This series requires less space and has greater EMI suppression effects.
- Different types with the same shape are available.
- Excellent in physical properties, such as terminal strength, flexure strength, soldering resistance and solder-ability.
- Applicable to both flow and IR reflow soldering.
- High impedance covers wide frequency ranges.
- TI series can be used in high current circuits due to its low DC resistance.
- Operating temperature: -40°C to $+125^{\circ}\text{C}$.
- Impedance and Current Range: From $7\ \Omega$ (800 mA) to $2700\ \Omega$ (300 mA)
- Unspecified values available on request.
- MSL: Level 1.

D. Applications

- Game Consoles
- Set Top Boxes
- Cables Modems
- Computers
- Mobile Communication Devices (Cell Phones, Radios, etc.)