



FB100505 (0402) Series – SMD MULTILAYER FERRITE CHIP BEADS (HIGH IMPEDANCE)

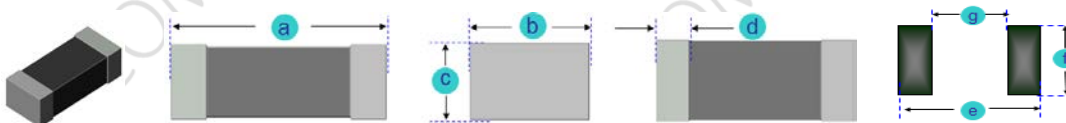
Rev. A

A. Electrical Specifications:

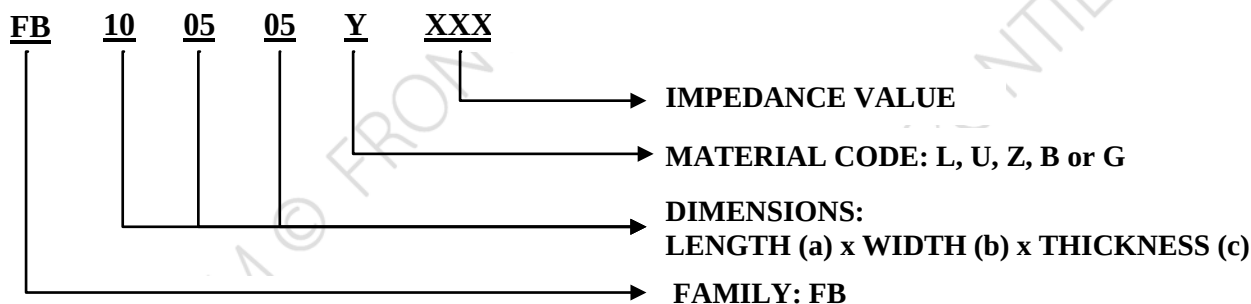
P/N	Impedance (Ω) $\pm 25\%$ @100MHz	DCR Max. (Ω)	I rms. Max. (mA)
FB100505U100	10	0.05	800
FB100505U300	30	0.15	800
FB100505U470	47	0.15	500
FB100505U600	60	0.20	500
FB100505U750	75	0.25	500
FB100505U121	120	0.25	800
FB100505U221	220	0.35	700
FB100505U301	300	0.50	500
FB100505U471	470	0.65	500
FB100505U601	600	0.65	500
FB100505U102	1000	0.85	500
FB100505Z300	30	0.20	500
FB100505Z600	60	0.30	500
FB100505Z800	80	0.35	500
FB100505Z121	120	0.35	500
FB100505Z221	220	0.40	500
FB100505Z301	300	0.50	200
FB100505Z471	470	0.65	200
FB100505Z601	600	0.85	200
FB100505G100	10	0.05	500
FB100505G300	30	0.30	500
FB100505G600	60	0.40	200
FB100505G750	75	0.50	200
FB100505G121	120	0.50	200
FB100505G221	220	0.70	100
FB100505G301	300	0.80	100
FB100505G471	470	1.00	100
FB100505G601	600	1.00	100
FB100505G102	1000	1.30	100
FB100505G152	1500	1.50	50

B. Dimensions: mm (Inch)

Series	a	b	c	d	e	f	g
FB100505	1.0 (0.039)	0.5 (0.020)	0.5 (0.020)	0.25 (0.010)	2.20 (0.087)	0.70 (0.028)	0.40 (0.016)
Tol.	± 0.1 (0.004)	± 0.1 (0.004)	± 0.1 (0.004)	± 0.15 (0.006)	Typ.	Typ.	Typ.



C. Part Number Key:





FB100505 (0402) Series – SMD MULTILAYER FERRITE CHIP BEADS (HIGH IMPEDANCE)

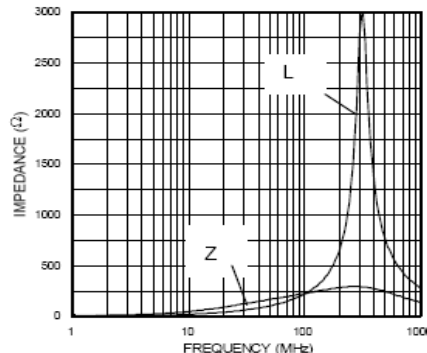
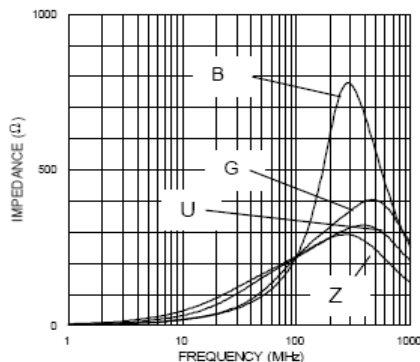
Rev. A

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.



F. General Information:

- FB100505-yxxx, "FB100505" = 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 have 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 $10\ \Omega$ (800 mA) to $1500\ \Omega$ (50 mA)
- Unspecified values available on request.
- MSL: Level 1.

G. Applications:

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