



FB3225 Series, FB4516 Series, FB4532 Series
SMD MULTILAYER FERRITE CHIP BEADS (HIGH IMPEDANCE)

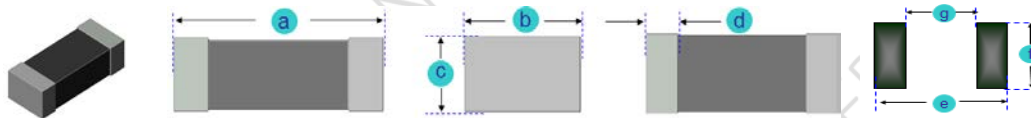
Rev. A

A. Electrical Specifications:

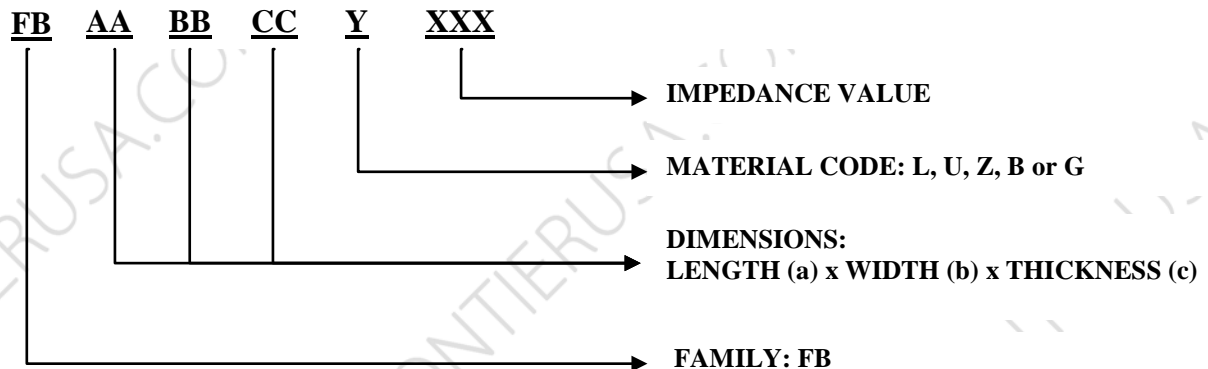
P/N	Impedance (Ω) $\pm 25\%$ @100MHz	DCR Max. (Ω)	I rms. Max. (mA)
FB322513U310	31	0.20	400
FB322513U330	33	0.20	400
FB322513U520	52	0.20	400
FB322513U600	60	0.20	800
FB451616U600	60	0.10	800
FB451616U800	80	0.10	600
FB451616U121	120	0.20	500
FB451616U181	180	0.25	500
FB451616Z800	80	0.10	600
FB451616Z121	120	0.10	600
FB451616Z151	150	0.20	500
FB451616Z171	170	0.25	500
FB453215U700	70	0.10	600
FB453215U800	80	0.10	600
FB453215U121	120	0.15	500
FB453215U131	130	0.15	500

B. Dimensions: mm (In)

Series	a	b	c	d	e	f	g
FB322513	3.2 (0.126)	2.5 (0.098)	1.3 (0.051)	0.5 (0.020)	4.40 (0.173)	2.70 (0.106)	1.20 (0.047)
Tol.	± 0.2 (0.008)	± 0.2 (0.008)	± 0.2 (0.008)	± 0.3 (0.012)	Typ.	Typ.	Typ.
FB451616	4.5 (0.177)	1.6 (0.063)	1.6 (0.063)	0.5 (0.020)	5.80 (0.228)	1.80 (0.071)	2.00 (0.079)
Tol.	± 0.2 (0.008)	± 0.2 (0.008)	± 0.2 (0.008)	± 0.3 (0.012)	Typ.	Typ.	Typ.
FB453215	4.5 (0.177)	3.2 (0.126)	1.5 (0.059)	0.5 (0.020)	5.80 (0.228)	3.40 (0.134)	2.00 (0.079)
Tol.	± 0.2 (0.008)	± 0.2 (0.008)	± 0.2 (0.008)	± 0.3 (0.012)	Typ.	Typ.	Typ.



C. Part Number Key:





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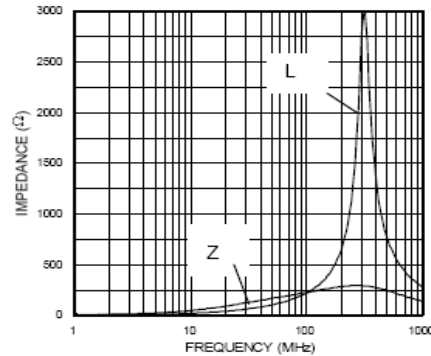
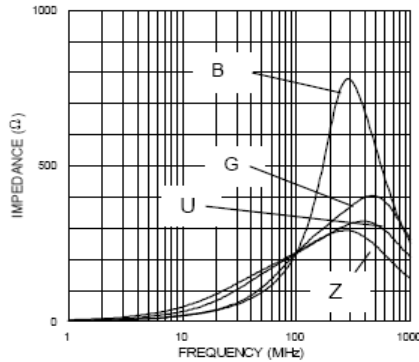
Rev. A

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):	$^{\circ}C$	>200	>200	>130	>100	>130
Volume Resistivity (ρ):	$\Omega\text{-m}$	100000	100000	100000	100000	100000
Temperature Coefficient:	1/10000 $^{\circ}C$	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:

- FBAABBCC-yxxx, “FB” = Type, “AA” = Length, “BB” = Width, “CC” = Thickness, “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: $-40^{\circ}C$ to $+125^{\circ}C$
- Unspecified values available on request.
- MSL: Level 1.
- Impedance and Current range:
 - FB322513 (1206) Series: From 31 Ω (400 mA) to 60 Ω (800 mA)
 - FB451616 (1806) Series: From 60 Ω (800 mA) to 180 Ω (500 mA)
 - FB453215 (1812) Series: From 70 Ω (600 mA) to 130 Ω (500 mA)

G. Applications:

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