Frontier Electronics Corp.

685 E. COCHRAN STREET, SIMI VALLEY, CA 93065
TEL: (805) 522-9998 FAX: (805) 522-9989
E-mail: frontiersales@frontierusa.com
Web: frontierusa.com

Multi-Layer Chip Beads--High Current TI series

A. Electrical specifications:

Part Number	Impedance (W) @ 100 MHz	DCR (W) max.	I (mA) max.
TI160808U300	30 ± 25%	0.030	3.0
TI160808U600	60 ± 25%	0.040	3.0
TI160808U121	120 ± 25%	0.100	2.5
TI160808U301	300 ± 25%	0.150	2.0
TI160808U601	600 ± 25%	0.200	1.0
TI201209U110	11 ± 25%	0.010	6.0
TI201209U170	17 ± 25%	0.025	3.0
TI201209U220	22 ± 25%	0.025	3.0
TI201209U300	30 ± 25%	0.025	3.0
TI201209U121	120 ± 25%	0.060	3.0
TI201209U301	300 ± 25%	0.100	2.0
TI201209U601	600 ± 25%	0.150	2.0
TI201209B070	7 ± 25%	0.030	3.0
TI321611Z260	26 ± 25%	0.010	6.0
TI321611U310	31 ± 25%	0.010	6.0
TI321611U500	50 ± 25%	0.025	3.0
TI321611U121	120 ± 25%	0.040	3.0
TI321611U301	300 ± 25%	0.050	2.5
TI321611U601	600 ± 25%	0.100	2.0
TI321611G800	80 ± 25%	0.030	3.0
TI321611G101	100 ± 25%	0.030	3.0
TI321611B190	19 ± 25%	0.040	3.0
TI322513U300	30 ± 25%	0.050	3.0
TI322513U520	52 ± 25%	0.050	3.0
TI322513U650	65 ± 25%	0.030	3.0
TI451616U600	60 ± 25%	0.010	6.0
TI451616U750	75 ± 25%	0.025	3.0
TI451616U800	80 ± 25%	0.050	3.0
TI453215Z121	120 ± 25%	0.050	3.0
TI453215U700	70 ± 25%	0.030	6.0
TI453215U121	120 ± 25%	0.050	3.0

B. Materials:

ITEM	UNIT	STANDARD VALUE			
Material Code:	----	B	U	Z	G
Initial Permeability (μiac):	----	45	200	500	110
Maximum Permeability (μm):	----	125	450	900	250
Saturation Flux Density at 10 Oe:	Gauss	2000	1400	1500	1700
Curie Temperature(Tc):	℃	>200	>130	>100	>130
Volume Resistivity:	Ω-m	100000	100000	100000	100000
Temperature Coefficient:	1/10000°C	10	13	5	12

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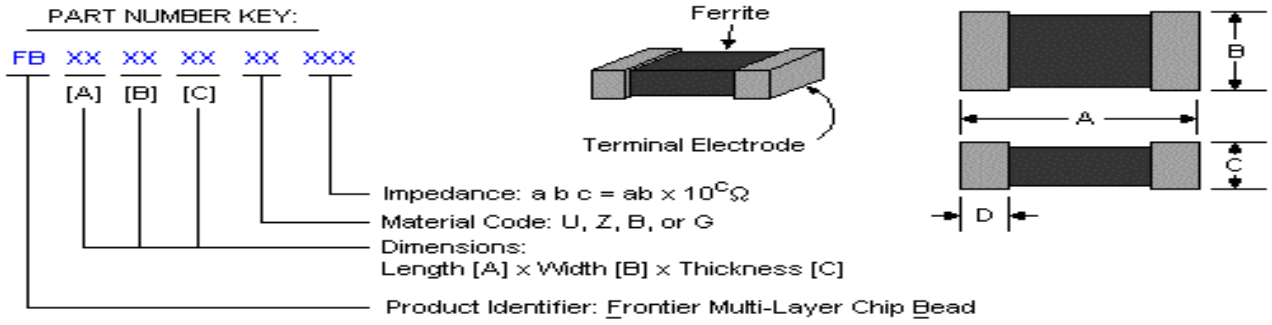
C. Dimensions: [Unit: mm /(inch)]

Package Size	A	B	C	D
160808 (0603)	1.6 ± 0.2 (0.063 ± 0.008)	0.8 ± 0.2 (0.031 ± 0.008)	0.8 ± 0.2 (0.031 ± 0.008)	0.5 ± 0.3 (0.020 ± 0.012)
201209 (0805)	2.0 ± 0.2 (0.079 ± 0.008)	1.2 ± 0.2 (0.047 ± 0.008)	0.9 ± 0.2 (0.035 ± 0.008)	0.5 ± 0.3 (0.020 ± 0.012)
321611 (1206)	3.2 ± 0.2 (0.126 ± 0.008)	1.6 ± 0.2 (0.063 ± 0.008)	1.1 ± 0.2 (0.043 ± 0.008)	0.5 ± 0.3 (0.020 ± 0.012)
321616 (1206)	3.2 ± 0.2 (0.126 ± 0.008)	1.6 ± .02 (0.063 ± 0.008)	1.6 ± 0.2 (0.063 ± 0.008)	0.5 ± 0.3 (0.020 ± 0.012)
322513 (1206)	3.2 ± 0.2 (0.126 ± 0.008)	2.5 ± .02 (0.098 ± 0.008)	1.3 ± 0.2 (0.035 ± 0.008)	0.5 ± 0.3 (0.020 ± 0.012)
451616 (1806)	4.5 ± 0.2 (0.177 ± 0.008)	1.6 ± 0.2 (0.063 ± 0.008)	1.6 ± 0.2 (0.063 ± 0.008)	0.5 ± 0.3 (0.020 ± 0.012)
453215 (1812)	4.5 ± 0.2 (0.177 ± 0.008)	3.2 ± 0.2 (0.126 ± 0.008)	1.5 ± 0.2 (0.059 ± 0.008)	0.5 ± 0.3 (0.020 ± 0.012)

D. Part Number Key & Mechanical drawing:



FB for Standard and high impedance series.

TI for high current series.

E. Features:

1. High density packaging with a pitch of 2.54 mm (0.1 Inch) max. is possible. This series require less space and have greater EMI suppression effects.
2. Different types with the same shape are available.
3. Excellent in physical properties, such as terminal strength, flexure strength, soldering resistance and solderability.
4. Applicable to both flow and IR reflow soldering.
5. High impedance cover wide frequency ranges.
6. TI series can be used in high current circuits due to its low DC resistance.
7. B material type can minimize attenuation of the signal waveform due to its sharp impedance characteristics.
8. The products have four types of material: Material B, G, U & Z.