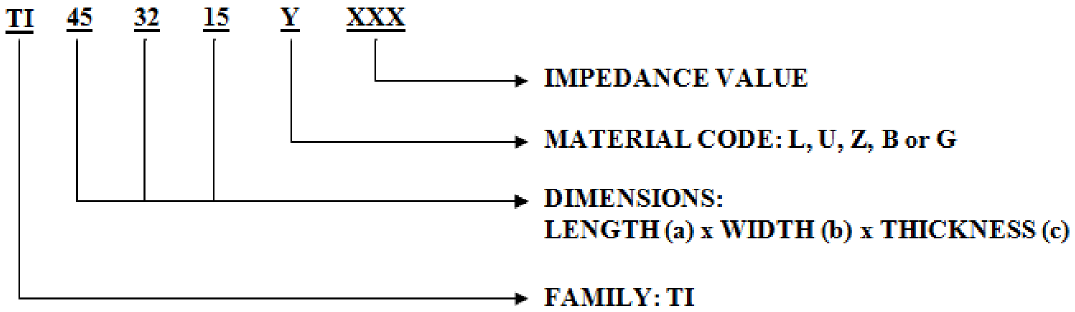
TI453215 (1812) Series
SMD MULTILAYER FERRITE CHIP BEADS (HIGH CURRENT)
Rev. A

A. Electrical Specifications:

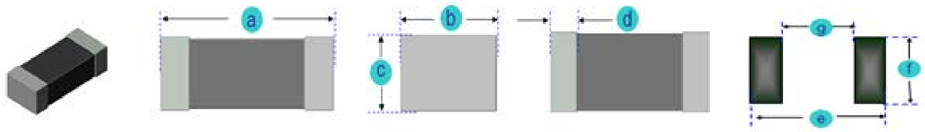
P/N	Impedance (Ω) ±25% @100MHz	DCR Max.(Ω)	I rms. Max. (A)
TI453215U700	70	0.010	6.0
TI453215U800	80	0.010	6.0
TI453215U101	100	0.010	6.0
TI453215U121	120	0.010	6.0
TI453215U131	130	0.010	6.0
TI453215Z700	70	0.010	6.0
TI453215Z800	80	0.010	6.0
TI453215Z121	120	0.010	6.0
TI453215Z131	130	0.010	6.0

B. Part Number Key:



C. Dimensions: mm (Inch)

Series	a	b	c	d	e	f	g
TI453215(1812)	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.

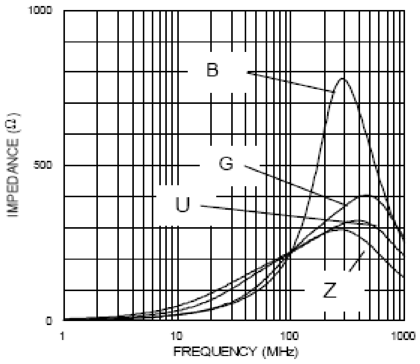


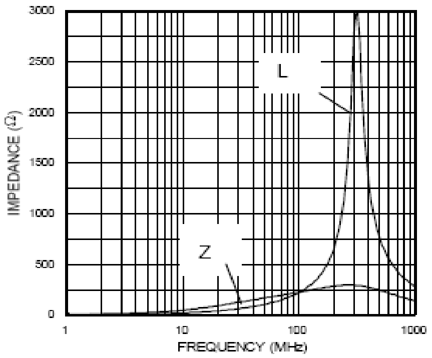
D. Materials:

ITEM	UNIT	Material Code L	 B	 G	 U	 Z
Initial Permeability (μiac):	----	25	45	110	200	500
Maximum Permeability (μm):	----	125	125	250	450	900
Saturation Flux Density at 10 Oe:	Gauss	2000	2000	1700	1400	1500
Curie Temperature(Tc):	°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/cm³	4.8	4.8	4.8	4.8	4.8

E. Impedance Characteristics of Materials:

a. Z Material is for applications whose blocking regions are near 100 MHz.
b. L Material, an improvement of B Material has sharp impedance characteristic at high frequency.
c. 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.
d. Different materials are available for different application range.
e. With one material, higher impedance has sharper characteristics.
f. Please confirm the signal wave form to choose suitable products.





F. General Information:

1. TI453215-yxxx, “TI” = Type, “45” = Length, “32” = Width, “15” = Thickness, “y” = Material, “xxx” = Impedance,
2. Tolerance: ±25%
3. Small and lightweight surface mounting type
4. 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.
5. Excellent in physical properties, such as terminal strength, flexure strength, soldering resistance and solder-ability.
6. Applicable to both flow and IR reflow soldering.
7. High impedance covers wide frequency ranges.
8. TI series can be used in high current circuits due to its low DC resistance.
9. Operating temperature: -40°C to +125ºC
10. Impedance and Current range: From 70 Ω (6000 mA) to 130 Ω (6000 mA)
11. Unspecified values available on request.
12. MSL: Level 1.

G. Applications:

1. Game Consoles
2. Set Top Boxes
3. Cables Modems
4. Computers
5. Mobile Communication Devices (Cell Phones, Radios, etc.)