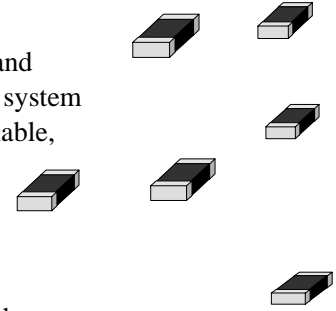


CHIP FERRITE BEAD FBM SERIES

Introductions

The FBM series chip ferrite devices are categorized as noise limiting for EMI/RFI issue and are widely used in communication applications, computers, digital and other information system products. These ferrite devices are typically useful when there is poor or no ground available, or capacitance cannot be tolerated by some high speed data line.



Features

- * Operating temperature -25 °C to + 85 °C.
- * A closed circuit formed by internal silver printed layer, acting like a magnetic shield, minimizes heat generation and cross-talk.
- * Nickel barrier termination makes the part suitable to use at either wave or IR soldering process
- * Easy to use, serial connection to Signal/Power lines for noise limiting purpose.
- * 3 types of ferrite material and wide range of Impedance value for flexible needs

Part Number Code

FBM 0805 S T 600 S □ □

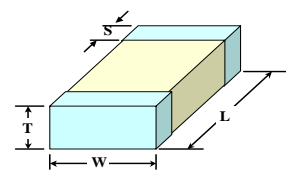
1 2 3 TAPING 4 5 Internal Code

1. Product Type Multilayer Chip Bead

2. Chip Dimension

Size (inch) mm	Length (L) (inch) mm	Width (W) (inch) mm	Thickness (T) (inch) mm	Terminal (S) (inch) mm
FBM 0603 160808	(0.063 ± 0.008) 1.60 ± 0.2	(0.031 ± 0.006) 0.80 ± 0.15	(0.033 ± 0.008) 0.85 ± 0.2	(0.012 ± 0.004) 0.30 ± 0.1
FBM 0805 201209	(0.080 ± 0.008) 2.00 ± 0.2	(0.050 ± 0.008) 1.25 ± 0.2	(0.033 ± 0.008) 0.85 ± 0.2	(0.020 ± 0.012) 0.50 ± 0.3
FBM 0805 201212	(0.080 ± 0.008) 2.00 ± 0.2	(0.050 ± 0.008) 1.25 ± 0.2	(0.050 ± 0.008) 1.25 ± 0.2	(0.020 ± 0.012) 0.50 ± 0.3
FBM 1206 321611	(0.126 ± 0.008) 3.20 ± 0.2	(0.063 ± 0.008) 1.60 ± 0.2	(0.043 ± 0.008) 1.10 ± 0.2	(0.020 ± 0.012) 0.50 ± 0.3
FBM 1206 321616	(0.126 ± 0.008) 3.20 ± 0.2	(0.063 ± 0.008) 1.60 ± 0.2	(0.063 ± 0.008) 1.60 ± 0.2	(0.020 ± 0.012) 0.50 ± 0.3
FBM 1806 451616	(0.177 ± 0.008) 4.50 ± 0.25	(0.063 ± 0.008) 1.60 ± 0.2	(0.063 ± 0.008) 1.60 ± 0.2	(0.028 ± 0.012) 0.70 ± 0.3
FBM 1816 453216	(0.177 ± 0.010) 4.50 ± 0.25	(0.126 ± 0.008) 3.20 ± 0.2	(0.060 ± 0.008) 1.50 ± 0.2	(0.028 ± 0.012) 0.70 ± 0.3

FBM SERIES



3. Material Type

- S : For general application.
- P : Identical to SD, but with high current capability.
- N : Narrow Band, having sharp impedance characteristics.

4. Impedance Value

060 = 6 Ω 601 = 600 Ω
 150 = 15 Ω 102 = 1000 Ω

5. Tolerance

S = ± 25 %

CHIP FERRITE BEAD FBM SERIES

Applications *

* Current Derating

When HC series is applied to operating temperature beyond + 85 °C, it is highly recommended to do current derating for reliability concern. The table below presents the derating data:

HC Type	@ 85 °C	@ 95 °C	@ 105 °C	@ 115 °C	@ 125 °C
6A part	6A	4.7A	3.5A	2.3A	1A
3A part	3A	2.5A	2A	1.5A	1A
1A part	1A	1A	1A	1A	1A

* Frequency Response Comparison - SP/HC vs. HF

- * SP series chip ferrite beads provide desired Impedance at lower frequency. It is suggested to use for general Signal line (low speed data/audio lines).
- HC series is identical to Sp, except its higher current handle capability and lower DC resistance ranging 0.01 ~ 0.1 W for Power lines.
- HF series are designated to the Clock line, high speed us and analog lines where signal waveform is critical.

* Advantages Of Using Chip Ferrite Beads

1. Most effective to reduce noise level when connecting series to poor or no ground circuit where the Impedance is typically 3Ω or above.
2. Provides 5-15 dB noise attenuation by a single bead device in series to Power/Signal lines.
3. No reflections & self-resonant at relatively high frequency.
4. Wider Impedance availabilities across higher operating frequency range.