

Part Number: 2743009112
 Frequency Range: Broadband Frequencies 25-300 MHz (43 material)
 Description: 43 BEAD ON LEAD
 Application: Suppression Components
 Where Used: Board Component
 Part Type: Beads-on-Leads
 Preferred Part: ✓

Mechanical Specifications

Weight: .700 (g)

Part Type Information

Ferrite suppression beads are supplied assembled on tinned copper wire for automated circuit board assembly.

-Parts with a '2' as the last digit of the part number are supplied taped and reeled per IEC 60286-1 and EIA RS-296-F standards. Taped and reeled parts are supplied 4500 pieces on a 14" reel. Taping details: Component pitch 5 mm. Inside tape spacing 52.5 mm. Tape width 6 mm.

-Beads-on-leads can be supplied bulk packed. The last digit of bulk packed parts is a '1'.

-Wires are oxygen free high conductivity copper with a lead-free tin coating. The resistance of the wire is 3.5 mOhm for the 22 AWG and 2.2 mOhm for the 20 AWG wire.

-Beads-on-leads are controlled for impedances only. The impedances listed are typical values. Minimum impedance values are specified for the + marked frequencies. The minimum guaranteed impedance is the listed impedance less 20%. The impedances of the 73 & 43 beads-on-leads are measured on the 4193A Vector Impedance Analyzer. The 61 beads-on-leads are tested for impedance on the 4191A RF Impedance Analyzer.

-Preferred beads-on-leads are the suggested choice for new designs. Samples are readily available and orders have typically shorter lead times than other beads-on-leads. For any bead-on lead requirement not listed here, feel free to contact our customer service group for availability and pricing.

-Our 'Bead-on-Lead Suppression Kit' (part number 0199000028) is available for prototype evaluation.

-Explanation of Part Numbers: Digits 1&2 = product class, 3&4 = material grade and last digit 1 = bulk packed, 2 = taped and reeled.

Fair-Play Products Corp.
 Your Signal Solution™
 10000 10th Street, Suite 100, San Diego, CA 92121
 (619) 444-1000

Mechanical Specifications

Part No.	Rev.	QTY	UNIT	PRICE	TOTAL
10000	1	1	EA	100.00	100.00
10001	1	1	EA	100.00	100.00
10002	1	1	EA	100.00	100.00
10003	1	1	EA	100.00	100.00
10004	1	1	EA	100.00	100.00
10005	1	1	EA	100.00	100.00
10006	1	1	EA	100.00	100.00
10007	1	1	EA	100.00	100.00
10008	1	1	EA	100.00	100.00
10009	1	1	EA	100.00	100.00
10010	1	1	EA	100.00	100.00
10011	1	1	EA	100.00	100.00
10012	1	1	EA	100.00	100.00
10013	1	1	EA	100.00	100.00
10014	1	1	EA	100.00	100.00
10015	1	1	EA	100.00	100.00
10016	1	1	EA	100.00	100.00
10017	1	1	EA	100.00	100.00
10018	1	1	EA	100.00	100.00
10019	1	1	EA	100.00	100.00
10020	1	1	EA	100.00	100.00
10021	1	1	EA	100.00	100.00
10022	1	1	EA	100.00	100.00
10023	1	1	EA	100.00	100.00
10024	1	1	EA	100.00	100.00
10025	1	1	EA	100.00	100.00
10026	1	1	EA	100.00	100.00
10027	1	1	EA	100.00	100.00
10028	1	1	EA	100.00	100.00
10029	1	1	EA	100.00	100.00
10030	1	1	EA	100.00	100.00
10031	1	1	EA	100.00	100.00
10032	1	1	EA	100.00	100.00
10033	1	1	EA	100.00	100.00
10034	1	1	EA	100.00	100.00
10035	1	1	EA	100.00	100.00
10036	1	1	EA	100.00	100.00
10037	1	1	EA	100.00	100.00
10038	1	1	EA	100.00	100.00
10039	1	1	EA	100.00	100.00
10040	1	1	EA	100.00	100.00
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10050	1	1	EA	100.00	100.00
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10052	1	1	EA	100.00	100.00
10053	1	1	EA	100.00	100.00
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10055	1	1	EA	100.00	100.00
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10068	1	1	EA	100.00	100.00
10069	1	1	EA	100.00	100.00
10070	1	1	EA	100.00	100.00
10071	1	1	EA	100.00	100.00
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10074	1	1	EA	100.00	100.00
10075	1	1	EA	100.00	100.00
10076	1	1	EA	100.00	100.00
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10093	1	1	EA	100.00	100.00
10094	1	1	EA	100.00	100.00
10095	1	1	EA	100.00	100.00
10096	1	1	EA	100.00	100.00
10097	1	1	EA	100.00	100.00
10098	1	1	EA	100.00	100.00
10099	1	1	EA	100.00	100.00
10100	1	1	EA	100.00	100.00

Notes:

1. All dimensions are in inches unless otherwise specified.
2. All tolerances are ±0.005 inches unless otherwise specified.
3. All surfaces are to be finished to a mirror finish unless otherwise specified.
4. All parts are to be made of 304 stainless steel unless otherwise specified.
5. All parts are to be heat treated to a minimum hardness of 150 Rockwell C unless otherwise specified.
6. All parts are to be passivated unless otherwise specified.
7. All parts are to be inspected to the following specifications: AS9100 Rev. C, ISO 9001:2015, and MIL-STD-883C.
8. All parts are to be marked with the part number and date of manufacture.
9. All parts are to be packaged in accordance with the following specifications: MIL-STD-883C, ISO 9001:2015, and AS9100 Rev. C.
10. All parts are to be shipped in accordance with the following specifications: MIL-STD-883C, ISO 9001:2015, and AS9100 Rev. C.

Revisions:

Rev.	Date	Description
1	10/10/2020	Initial Release

Material: 304 Stainless Steel

Quantity: 10000

Unit Price: \$100.00

Total Price: \$1000000.00

Part No.: 10000

Rev.: 1

QTY: 1

UNIT: EA

PRICE: 100.00

TOTAL: 100.00

Form Material Constants

Specific Heat	0.25 cal/g°C
Thermal Conductivity	0.0019 cal/cm·sec·°C
Coefficient of Linear Expansion	6.5 x 10 ⁻⁶ /°C
Tensile Strength	4.5 kg/cm ²
Compression Strength	4.5 kg/cm ²
Energy Absorbed	0.0015 kg/cm ²
Modulus of Elasticity	2.0 x 10 ¹⁰ dyn/cm ²
Modulus of Rupture	2.0 x 10 ¹⁰ dyn/cm ²

The above material properties are typical for Fair-File 1000 and 1000 Series.

Fair-Rite Products Corp.
 Your Signal SolutionSM
4000 Westborough Road • Westborough, MA 01581 • 508-853-5800 • www.fair-rite.com

Product Description
 This is a 100% nickel-zinc ferrite core with a permeability of 1000. It is used for high frequency applications in the range of 100 MHz to 1 GHz. The core is available in various sizes and shapes to suit your needs.

Key Features
 • High permeability (1000)
 • Low loss tangent
 • Excellent thermal stability
 • Wide frequency range (100 MHz to 1 GHz)

Applications
 • High frequency transformers
 • Inductors
 • Chokes
 • Matching networks

Material Properties

Property	Value
Permeability (μ_r)	1000
Loss Tangent	0.001
Temperature Coefficient of Permeability	-0.015 / °C
Temperature Coefficient of Loss Tangent	0.001 / °C
Operating Temperature Range	-55°C to 125°C

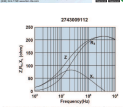
Physical Dimensions

Part Number	Dimensions (mm)
1000-0500	5.0 x 5.0 x 2.5
1000-0750	7.5 x 7.5 x 2.5
1000-1000	10.0 x 10.0 x 2.5
1000-1500	15.0 x 15.0 x 2.5
1000-2000	20.0 x 20.0 x 2.5
1000-2500	25.0 x 25.0 x 2.5
1000-3000	30.0 x 30.0 x 2.5
1000-3500	35.0 x 35.0 x 2.5
1000-4000	40.0 x 40.0 x 2.5
1000-4500	45.0 x 45.0 x 2.5
1000-5000	50.0 x 50.0 x 2.5

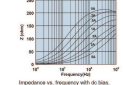
Electrical Characteristics

Frequency (MHz)	Permeability (μ_r)	Loss Tangent
100	1000	0.001
500	1000	0.001
1000	1000	0.001
5000	1000	0.001
10000	1000	0.001

Notes
 1. All dimensions are in millimeters unless otherwise specified.
 2. The permeability and loss tangent values are typical values and may vary slightly from the values shown in the table.
 3. The operating temperature range is limited by the maximum and minimum temperatures of the materials used in the core.



Impedance, reactance, and resistance vs. frequency



Impedance vs. frequency with R, L, and C