

## Round Cable Snap- Its (0431176451)

Part Number: 0431176451

### 31 ROUND CABLE CORE ASSEMBLY

#### Explanation of Part Numbers:

- Digits 1 & 2 = Product Class
- Digits 3 & 4 = Material Grade

**Round cable snap- its can easily accommodate round cables or bundled wires with diameters from 2.5 mm (0.100") to 25.4 mm (1.000"). These assemblies are available in four ferrite material classes to suppress differential or common- mode conducted EMI from 1 MHz into the GHz region. The polypropylene cases are meeting the RoHS restrictions of hazardous substances and have a flammability rating of UL 94 V-0.**

□ Many of the snap- it parts have round core equivalents. See □ Round Cable EMI Suppression Cores □.

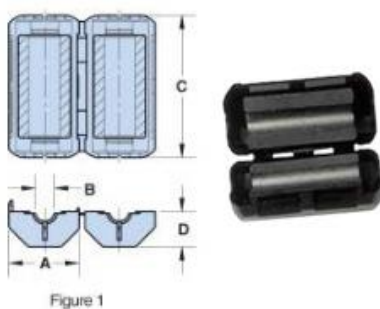
□ Round Cable Snap- It Kits are available for each of the four suppression materials. 31 Snap- It Kit (0199000030), 43 Snap- It Kit (0199000031), 46 Core and Snap- It Kit (0199000032) and 61 Snap- It Kit (0199000033).

The □ B □ dimension is the core inside diameter.

Weight: 161 (g)

| Dim | mm    | mm tol | nominal inch | inch misc. |
|-----|-------|--------|--------------|------------|
| A   | 38.6  | —      | 1.52         | —          |
| B   | 18.35 | —      | 0.722        | —          |
| C   | 47.5  | —      | 1.87         | —          |
| D   | 19.15 | —      | 0.755        | —          |

| Cable Information |               |                  |                  |
|-------------------|---------------|------------------|------------------|
| Max Diameter      | Max Dimension | Solid Equivalent | Flat Cable Cores |
| 18<br>0.709       | —             | 2631103002       | —                |



#### Chart Legend

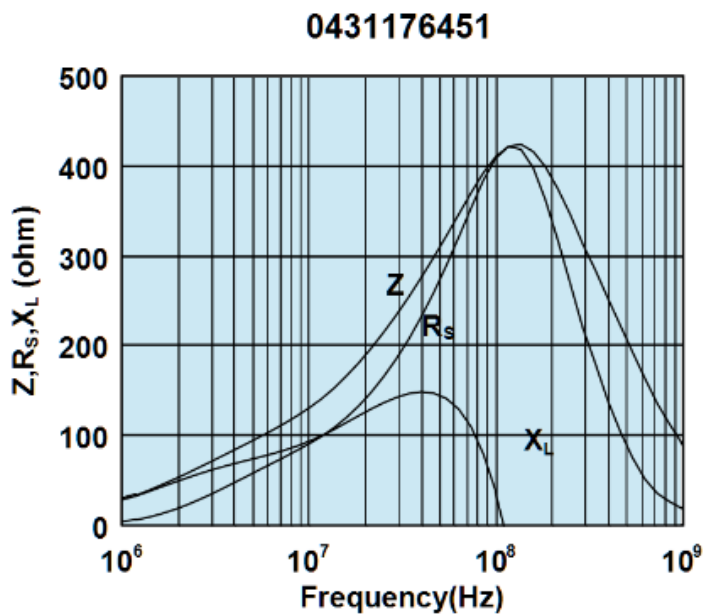
+ Test frequency

• For solid cable cores, see Round Cable EMI Suppression Cores

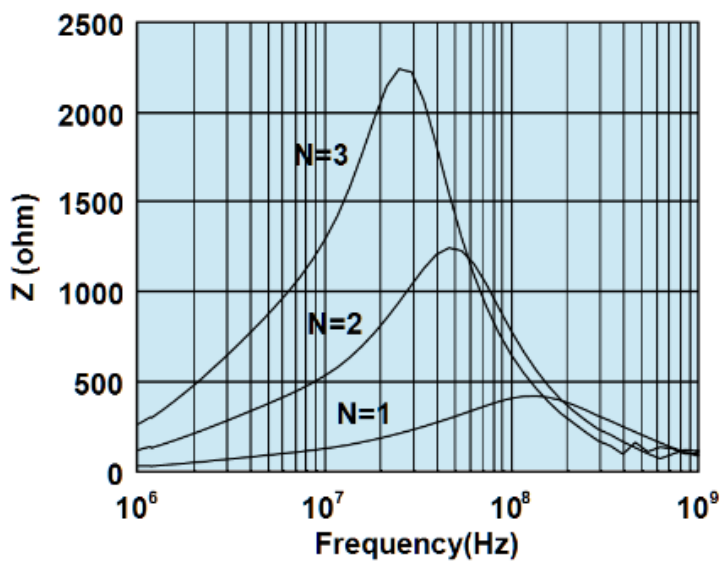
| Typical Impedance ( $\Omega$ ) |     |
|--------------------------------|-----|
| 1 MHz                          | 47  |
| 5 MHz                          | 95  |
| 10 MHz <sup>+</sup>            | 130 |
| 25 MHz <sup>+</sup>            | 225 |
| 100 MHz <sup>+</sup>           | 380 |
| 250 MHz                        | 370 |

□ Round cable snap- it assemblies are controlled for impedances only. Minimum impedance values are specified for the + marked frequencies. The minimum impedance is typically the listed impedance less 20%.

□ Single turn impedance tests for the 31, 43/44 and 46 material parts are performed on the 4193A Vector Impedance Analyzer. The 61 material parts are tested on the 4291A RF Impedance Analyzer and 75 material parts are tested on the 4285A LCR Meter.. Cores are tested with the shortest practical wire length.



Impedance, reactance, and resistance vs. frequency.



Impedance vs. frequency with one, two, and three turns.

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