Fair-Rite Products Corp.

Your Signal Solution®

## Toroids (5943001801)



Part Number: 5943001801

43 TOROID

Explanation of Part Numbers: - Digits 1 & 2 = Product Class - Digits 3 & 4 = Material Grade - 9th digit 1 = Parylene Coating, 2 = Thermo- Set Plastic Coating

## A ring configuration provides the ultimate utilization of the intrinsic ferrite material properties. Toroidal cores are used in a wide variety of applications such as power input filters, ground- fault interrupters, common- mode filters and in pulse and broadband transformers.

All toroidal cores are supplied burnished to break sharp edges.

Coating Options:

- Toroids with an outside diameter of 9.5 mm (0.375") or smaller can be supplied Parylene C coated. The Parylene coating will increase the "A" and "C" dimensions and decrease the "B" dimension a maximum of 0.038 mm (0.0015"). The ninth digit of a Parylene coated toroid part number is a "1". See reference tables for the material characteristics of Parylene C. Parylene C coating is RoHS compliant.

Toroids with an outside diameter of 9.5 mm (0.375") or larger can be supplied with a uniform coating of thermo- set plastic coating. This coating will increase the "A" and "C" dimensions and decrease the "B" dimension a maximum of 0.5 mm (0.020"). The 9th digit of the thermo- set plastic coated toroid part number is a "2". Thermo- set plastic coating is RoHS compliant.
Thermo- set plastic coated parts can withstand a minimum breakdown voltage of 1000 Vrms, uniformly applied across the "C" dimension of the toroid.

## For any toroidal core requirement not listed in the catalog, please contact our customer service department for availability and pricing.

Catalog Drawing 3D Model

The C dimension may be modified to suit specific applications.

Weight: 7.2 (g)

|     |      | 5/     |              |            |              |   |   |
|-----|------|--------|--------------|------------|--------------|---|---|
| Dim | mm   | mm tol | nominal inch | inch misc. |              |   |   |
| Α   | 22.1 | ±0.40  | 0.87         |            |              |   | E |
| В   | 13.7 | ±0.30  | 0.539        |            | $\neg (( ))$ |   |   |
| С   | 6.35 | ±0.25  | 0.25         |            |              | в |   |
| -   |      |        |              | <b> </b>   |              | 1 |   |
|     |      |        |              |            |              |   | - |

## **Chart Legend**

 $\Sigma I/A$ : Core Constant,  $l_e$ : Effective Path Length,  $A_e$ : Effective Core Volume  $A_L$ : Inductance Factor

 $A_e$ : Effective Cross- Sectional Area,  $V_e$ :

| Electrical Properties   |          |  |  |  |  |  |
|-------------------------|----------|--|--|--|--|--|
| A <sub>L</sub> (nH)     | 485 ±20% |  |  |  |  |  |
| $Ae(cm^2)$              | 0.262    |  |  |  |  |  |
| $\Sigma l / A(cm^{-1})$ | 20.7     |  |  |  |  |  |
| l <sub>e</sub> (cm)     | 5.4      |  |  |  |  |  |
| $V_{e}(cm^{3})$         | 1.42     |  |  |  |  |  |

Toroids are tested for  $A_{\rm\scriptscriptstyle L}$  values at 10 kHz.

| Fair- Rite Products Corp. • One Commercial Row, Wallkill, New York 12589-0288 |  |              |  |                   |  |  |  |                    |  |  |
|---|--|--------------|--|-------------------|--|--|--|--------------------|--|--|
| 888-324-7748  |  | 845-895-2055 |  | Fax: 845-895-2629 |  |  |  | www.fair- rite.com |  |  |