Fair-Rite Products Corp.

Your Signal Solution®

## Toroids (5943001901)



Part Number: 5943001901

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: | 4.7 | (g) |
|---------|-----|-----|
|         |     |     |

| A 12.7 ±0.25 0.5   B 7.9 ±0.20 0.311   C 12.7 ±0.35 0.5 | Dim | mm   | mm tol | nominal inch | inch misc. |              |   |    |
|---|-----|------|--------|--------------|------------|--------------|---|----|
|   | А   | 12.7 | ±0.25  | 0.5          |            |              |   |    |
| C $127 \pm 0.35 = 0.5$                                  | В   | 7.9  | ±0.20  | 0.311        | _          | $\neg (( ))$ |   | 11 |
|   | С   | 12.7 | ±0.35  | 0.5          |            |              | • |    |
|   |     |      |        |              |            |              |   |    |

## **Chart Legend**

 $\Sigma l/A$ : 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 P            | roperties |
|-------------------------|-----------|
| A <sub>L</sub> (nH)     | 965 ±20%  |
| $Ae(cm^2)$              | 0.299     |
| $\Sigma l / A(cm^{-1})$ | 10.4      |
| l <sub>e</sub> (cm)     | 3.12      |
| $V_{e}(cm^{3})$         | 0.93      |

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

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