Fair-Rite Products Corp.
Your Signal Solution®

# Toroids (5977001701)

Part Number: 5977001701

77 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: 23 (g)

| Dim | mm | mm tol | nominal inch | inch misc. |
|---|---|---|---|---|
| A | 31.75 | ±0.75 | 1.25 | _ |
| B | 19.05 | ±0.50 | 0.75 | _ |
| C | 9.5 | ±0.30 | 0.374 | _ |

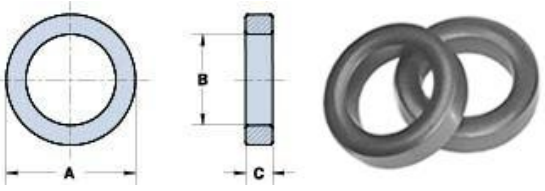



**Chart Legend**
$\Sigma l / A$ : Core Constant, $l_e$ : Effective Path Length, $A_e$ : Effective Cross- Sectional Area, $V_e$ : Effective Core Volume
$A_L$ : Inductance Factor

| Electrical Properties | |
|---|---|
| $A_L$(nH) | 2090 ±25% |
| Ae($cm^2$) | 0.59 |
| $\Sigma l / A$($cm^{-1}$) | 12.9 |
| $l_e$(cm) | 7.6 |
| $V_e$($cm^3$) | 4.5 |

Toroids are tested for $A_L$ values at 10 kHz.

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