

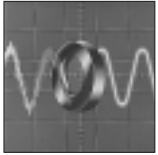
SOFT FERRITES

Epoxy Coated Toroids



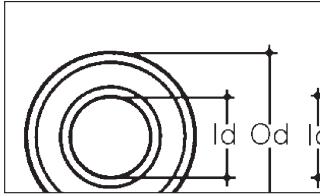


EMI suppression



FILTERING APPLICATION

For small signal application like EMI suppression, all kind of filters or broadband transformers, Thomson-CSF Passive Components proposes a wide range of toroids. These are available in material grade especially developed for that purpose with initial permeability 6000.



Symbols	Units	Test Conditions	Material Grade A4
μ_i		25°C	6000 ± 25%
\hat{B} at \hat{H} (nominal values)	mT A/m	25°C 100°C	350 250 800
H_c	A/m	25°C 100°C	6.4 4.8
θ_c	°C		> 140
$tg\delta/\mu$ at f	$\times 10^{-4}$ kHz	25°C	< 9 10
ρ	m	25°C	0.5
Density	g/cm ³	25°C	4.8

Values measured on $\varnothing 21 \times \varnothing 14 \times 10$ reference toroid

Od mm	Id mm	h mm	COATED TOROIDS		UNCOATED TOROIDS	
			P/N	A4 Material AL nH ± 25%	P/N	A4 Material AL nH ± 25%
10 ± 0.3	6 ± 0.2	4 ± 0.15	A4TE1000A	2450	A4T-1000A	2450
10 ± 0.3	6 ± 0.2	3 ± 0.15	A4TE1000C	1800	A4T-1000C	1800
12.7 ± 0.25	7.14 ± 0.18	4.7 ± 0.13	A4TE1270A	3100	A4T-1270A	3100
12.7 ± 0.25	7.14 ± 0.18	6.35 ± 0.25	A4TE1270B	4400	A4T-1270B	4400
14 ± 0.4	9 ± 0.4	5 ± 0.3	A4TE1400A	2400	A4T-1400A	2400
14 ± 0.4	9 ± 0.4	9 ± 0.3	A4TE1400B	4470	A4T-1400B	4470
16 ± 0.5	9.6 ± 0.3	6.3 ± 0.2	A4TE1600A	3800	A4T-1600A	3800
20 ± 0.5	10 ± 0.35	7 ± 0.4	A4TE2000B	5400	A4T-2000B	5400
20 ± 0.5	10 ± 0.35	8 ± 0.4	A4TE2000C	6650	A4T-2000C	6650
25 ± 0.75	15 ± 0.45	10 ± 0.3	A4TE2500A	6000	A4T-2500A	6000
25 ± 0.75	15 ± 0.45	15 ± 0.5	A4TE2500B	8400	A4T-2500B	8400
31.5 ± 1	19 ± 0.6	12.5 ± 0.4	A4TE3150A	7500	A4T-3150A	7500

EPOXY COATING specification

Thickness : 200 to 400 μ m

Breakdown voltage : > 2000 VDC

Colour : white

Self extinguishing product

(Conformance to UL 94 V1)

Coating thickness : 200 μ m typical

to be added to the uncoated dimensions



Lighting

Thomson-CSF Passive Components proposes a complete range of toroids for your lighting applications (ignitors and electronic transformers). These ring cores are available in our standard B2 power material and with or without epoxy coating.



P O W E R
A P P L I C A T I O N

μ_i : initial permeability

\hat{B} : flux density (peak value)

1 A/m = 10^{-4} A/cm = 1.26×10^{-4} Oe (oersted)

H : AC magnetic field strength

θ_c : Curie point

\hat{H}_C : coercive field (peak value)

f_c : cut-off frequency

P_L : power losses

ρ : resistivity

1 mT (millitesia) = 10 G (Gauss)

Symbols	Units	Test Conditions	Material Grade B2
μ_i		25°C	1900 ± 25%
\hat{B} at \hat{H} (nominal values)	mT	400 A/m 25°C 1600 A/m 100°C	460 360 490 380
H_C	A/m	25°C 100°C	16 10
θ_c	°C		> 250
P_L	mW/cm ³	100kHz - 100°C 100 mT	< 120
ρ	m	25°C	6
Density	g/cm ³	25°C	4.8

Values measured on $\varnothing 35 \times \varnothing 12 \times 18$ reference toroid

Od mm	Id mm	h mm	COATED TOROIDS		UNCOATED TOROIDS	
			P/N	B2 Material AL nH	P/N	B2 Material AL nH
10 ± 0.3	6 ± 0.2	4 ± 0.15	B2TE1000A	> 570	B2T-1000A	> 570
10 ± 0.3	6 ± 0.2	3 ± 0.15	B2TE1000C	> 445	B2T-1000C	> 445
12.7 ± 0.25	7.14 ± 0.18	4.7 ± 0.13	B2TE1270A	> 790	B2T-1270A	> 790
12.7 ± 0.25	7.14 ± 0.18	6.35 ± 0.25	B2TE1270B	> 1050	B2T-1270B	> 1050
14 ± 0.4	9 ± 0.4	5 ± 0.3	B2TE1400A	> 625	B2T-1400A	> 625
14 ± 0.4	9 ± 0.4	9 ± 0.3	B2TE1400B	> 1150	B2T-1400B	> 1150
16 ± 0.5	9.6 ± 0.3	6.3 ± 0.2	B2TE1600A	> 900	B2T-1600A	> 900
20 ± 0.5	10 ± 0.35	7 ± 0.4	B2TE2000B	> 1400	B2T-2000B	> 1400
20 ± 0.5	10 ± 0.35	8 ± 0.4	B2TE2000C	> 1600	B2T-2000C	> 1600
25 ± 0.75	15 ± 0.45	10 ± 0.3	B2TE2500A	> 1450	B2T-2500A	> 1450
25 ± 0.75	15 ± 0.45	15 ± 0.5	B2TE2500B	> 2200	B2T-2500B	> 2200
31.5 ± 1	19 ± 0.6	12.5 ± 0.4	B2TE3150A	> 1800	B2T-3150A	> 1800

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