Multi-Aperture Cores

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Multi-aperture cores are used in suppression applications and in balun (balance-unbalance) and other broadband transformers. They are also employed in airbag designs to prevent accidental activation.

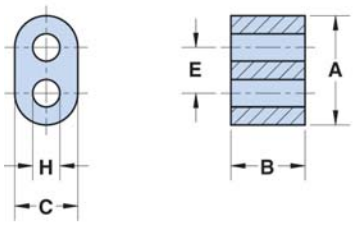

Figure 1

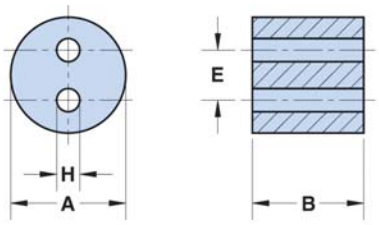

Figure 2

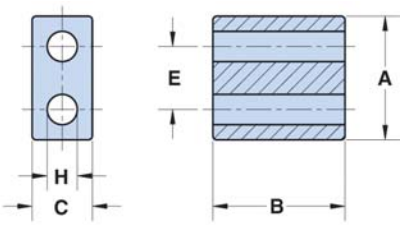

Figure 3

- All multi-aperture cores are supplied burnished.
- Multi-aperture cores in 73 and 43 materials are controlled for impedance only. The 61 NiZn material is controlled for both impedance and AL value. The high frequency 67 material is controlled for AL value. Minimum impedance values are specified for the + marked frequencies. The minimum impedance is typically the listed impedance less 20%.
- Multi-aperture cores in 73 and 43 material are measured for impedance on the 4193A Vector Impedance Analyzer. The 61 and 67 multi-aperture cores are tested on the 4291A Impedance Analyzer. All impedance measurements are performed with a single turn to both holes, **using the shortest practical wire length**.
- The 61 and 67 material multi-hole beads are tested for AL value. The test frequency is 10 kHz at < 10 gauss. The test winding is five turns wound through both holes.
- Performance curves for these suppression components are on our web site.
- For any multi-aperture requirement not listed here, feel free to contact our customer service group for availability and pricing.
- Our "Multi-Aperture Core Kit" (part number 0199000036) is available for prototype evaluation.
- Explanation of Part Numbers: Digits 1&2 = product class, 3&4 = material grade last digit 2 = burnished.

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Legend

Dimensions (Top numbers are in millimeters, bottom numbers are in nominal inches.) *+ Test frequency*

Suppression Applications for Lower Frequencies < 50 MHz (73 material)

Part Number	Fig.	A	B	C	E	H	Wt. (g)	Impedance (Ω) 10 MHz	Impedance (Ω) 25 MHz+
2873002302	1	3.45 ±0.25 0.136	2.35 ±0.25 0.093	2.00 ±0.15 0.079	1.45 ±0.10 0.057	0.75 +0.25 0.034	0.10	35	44
2873002702	1	7.00 ±0.25 0.276	3.10 ±0.25 0.122	4.20 -0.25 0.160	2.90 ±0.10 0.114	1.70 +0.20 0.071	0.30	28	38
2873002402	1	7.00 ±0.25 0.276	6.20 ±0.25 0.244	4.20 -0.25 0.160	2.90 ±0.10 0.114	1.70 +0.20 0.071	0.50	80	75
2873001802	2	6.35 ±0.25 0.250	6.15 ±0.25 0.242	–	2.75 ±0.20 0.108	1.10 +0.30 0.050	0.80	115	106
2873001702	2	6.35 ±0.25 0.250	12.00 ±0.35 0.471	–	2.75 ±0.20 0.108	1.10 +0.30 0.050	1.60	200	200
2873001502	1	13.30 ±0.60 0.525	6.60 ±0.25 0.260	7.50 ±0.35 0.295	5.70 ±0.25 0.225	3.80 ±0.25 0.150	1.70	57	50
2873000302	1	13.30 ±0.60 0.525	10.30 ±0.30 0.407	7.50 ±0.35 0.295	5.70 ±0.25 0.225	3.80 ±0.25 0.150	2.60	94	75
2873000102	1	13.30 ±0.60 0.525	13.40 ±0.30 0.528	7.50 ±0.35 0.295	5.70 ±0.25 0.225	3.80 ±0.25 0.150	3.50	127	93
2873000202	1	13.30 ±0.60 0.525	14.35 ±0.50 0.565	7.50 ±0.35 0.295	5.70 ±0.25 0.225	3.80 ±0.25 0.150	3.70	125	106
2873006802	1	13.30 ±0.60 0.525	27.00 ±0.75 1.062	7.50 ±0.35 0.295	5.70 ±0.25 0.225	3.80 ±0.25 0.150	7.00	195	180

Suppression Applications for Broadband Frequencies 20-300 MHz (43 material)

Part Number	Fig.	A	B	C	E	H	Wt. (g)	Impedance (Ω) 25 MHz	Impedance (Ω) 100 MHz+
2843002302	1	3.45 ±0.25 0.136	2.35 ±0.25 0.093	2.00 ±0.15 0.079	1.45 ±0.10 0.057	0.75 +0.25 0.034	0.10	29	44
2843002702	1	7.00 ±0.25 0.276	3.10 ±0.25 0.122	4.20 -0.25 0.160	2.90 ±0.10 0.114	1.70 +0.20 0.071	0.30	37	50
2843002402	1	7.00 ±0.25 0.276	6.20 ±0.25 0.244	4.20 -0.25 0.160	2.90 ±0.10 0.114	1.70 +0.20 0.071	0.50	74	100
2843001802	2	6.35 ±0.25 0.250	6.15 ±0.25 0.242	–	2.75 ±0.20 0.108	1.10 +0.30 0.050	0.80	100	131
2843001502	1	13.30 ±0.60 0.525	6.60 ±0.25 0.260	7.50 ±0.35 0.295	5.70 ±0.25 0.225	3.80 ±0.25 0.150	1.70	59	88
2843000302	1	13.30 ±0.60 0.525	10.30 ±0.30 0.407	7.50 ±0.35 0.295	5.70 ±0.25 0.225	3.80 ±0.25 0.150	2.60	104	130
2843000102	1	13.30 ±0.60 0.525	13.40 ±0.30 0.528	7.50 ±0.35 0.295	5.70 ±0.25 0.225	3.80 ±0.25 0.150	3.50	122	175
2843000202	1	13.30 ±0.60 0.525	14.35 ±0.50 0.565	7.50 ±0.35 0.295	5.70 ±0.25 0.225	3.80 ±0.25 0.150	3.70	123	180
2843006802	1	13.30 ±0.60 0.525	27.00 ±0.75 1.062	7.50 ±0.35 0.295	5.70 ±0.25 0.225	3.80 ±0.25 0.150	7.00	219	300
2843010402	3	19.45 ±0.40 0.765	12.70 ±0.50 0.500	9.50 ±0.25 0.375	9.90 ±0.25 0.390	4.75 ±0.20 0.187	7.50	135	200
2843010302	3	19.45 ±0.40 0.765	25.40 ±0.70 1.000	9.50 ±0.25 0.375	9.90 ±0.25 0.390	4.75 ±0.20 0.187	18.00	295	400
2843009902	3	28.70 ±0.60 1.130	28.70 ±0.70 1.130	14.25 ±0.30 0.560	14.00 ±0.30 0.550	6.35 ±0.15 0.250	48.00	380	500

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Suppression Applications for Higher Frequencies > 250 MHz (61 material)
Broadband and Inductive Designs 1- 40 MHz (61 material)

Part Number	Fig.	A	B	C	E	H	Wt. (g)	Impedance (Ω) 100 MHz	Impedance (Ω) 250 MHz+	A_L(nH)
2861002302	1	3.45 ±0.25 0.136	2.35 ±0.25 0.093	2.00 ±0.15 0.079	1.45 ±0.10 0.057	0.75 +0.25 0.034	0.10	35	48	60 Min
2861002702	1	7.00 ±0.25 0.276	3.10 ±0.25 0.122	4.20 -0.25 0.160	2.90 ±0.10 0.114	1.70 +0.20 0.071	0.30	44	63	80 Min
2861002402	1	7.00 ±0.25 0.276	6.20 ±0.25 0.244	4.20 -0.25 0.160	2.90 ±0.10 0.114	1.70 +0.20 0.071	0.50	80	118	160 Min
2861001702	2	6.35 ±0.25 0.250	12.00 ±0.35 0.471	–	2.75 ±0.20 0.108	1.10 +0.30 0.050	1.60	210	275	440 Min
2861001502	1	13.30 ±0.60 0.525	6.60 ±0.25 0.260	7.50 ±0.35 0.295	5.70 ±0.25 0.225	3.80 ±0.25 0.150	1.70	90	115	145 Min
2861000302	1	13.30 ±0.60 0.525	10.30 ±0.30 0.407	7.50 ±0.35 0.295	5.70 ±0.25 0.225	3.80 ±0.25 0.150	2.60	150	200	230 Min
2861000102	1	13.30 ±0.60 0.525	13.40 ±0.30 0.528	7.50 ±0.35 0.295	5.70 ±0.25 0.225	3.80 ±0.25 0.150	3.50	160	225	300 Min
2861000202	1	13.30 ±0.60 0.525	14.35 ±0.50 0.565	7.50 ±0.35 0.295	5.70 ±0.25 0.225	3.80 ±0.25 0.150	3.70	150	190	320 Min
2861006802	1	13.30 ±0.60 0.525	27.00 ±0.75 1.062	7.50 ±0.35 0.295	5.70 ±0.25 0.225	3.80 ±0.25 0.150	7.00	300	425	600 Min
2861010002	3	30.20 ±0.60 1.190	28.70 ±0.70 1.130	15.00 ±0.40 0.590	14.60 ±0.40 0.575	6.80 ±0.2 0.268	46.00	510	625	800 Min

Broadband and Inductive Designs 10-100 MHz (67 material)

Part Number	Fig.	A	B	C	E	H	Wt. (g)	A_L(nH)
2867002302	1	3.45 ±0.25 0.136	2.35 ±0.25 0.093	2.00 ±0.15 0.079	1.45 ±0.10 0.057	0.75 +0.25 0.034	0.10	18 Min
2867002702	1	7.00 ±0.25 0.276	3.10 ±0.25 0.122	4.20 -0.25 0.160	2.90 ±0.10 0.114	1.70 +0.20 0.071	0.30	24 Min
2867002402	1	7.00 ±0.25 0.276	6.20 ±0.25 0.244	4.20 -0.25 0.160	2.90 ±0.10 0.114	1.70 +0.20 0.071	0.50	48 Min
2867001502	1	13.30 ±0.60 0.525	6.60 ±0.25 0.260	7.50 ±0.35 0.295	5.70 ±0.25 0.225	3.80 ±0.25 0.150	1.70	44 Min
2867000302	1	13.30 ±0.60 0.525	10.30 ±0.30 0.407	7.50 ±0.35 0.295	5.70 ±0.25 0.225	3.80 ±0.25 0.150	2.60	68 Min
2867000102	1	13.30 ±0.60 0.525	13.40 ±0.30 0.528	7.50 ±0.35 0.295	5.70 ±0.25 0.225	3.80 ±0.25 0.150	3.50	89 Min
2867006802	1	13.30 ±0.60 0.525	27.00 ±0.75 1.062	7.50 ±0.35 0.295	5.70 ±0.25 0.225	3.80 ±0.25 0.150	7.00	180 Min