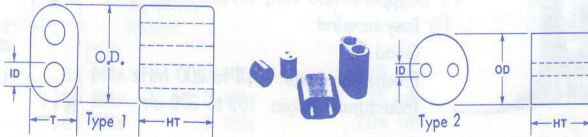


BALUNS and WIDEBAND CORES

The two-hole balun is commonly used for wideband transformers and impedance matching devices. The primary concern, when designing a wideband transformer, is to extend the bandwidth with a minimum of loss. The limiting factors are inductive reactance and core loss.

By winding through both holes of the binocular type two hole balun, a higher inductance per turn can be obtained than would otherwise be possible with a single hole core.

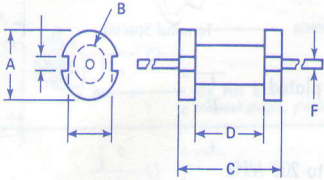


Dimensions in inches; A_L value in mh/1000 turns based on hole to hole winding

Part No.	OD	ID	Hgt	Th	Type	A_L	Part No.	OD	ID	Hgt	Th	Type	A_L
BN-43-202	.525	.150	.550	.295	one	2890	BN-61-2302	.136	.035	.093	.080	one	100
BN-43-2302	.136	.035	.093	.080	one	680	BN-61-2402	.280	.070	.240	.160	one	280
BN-43-2402	.280	.070	.240	.160	one	1277	BN-61-1702	.250	.050	.470	---	two	420
BN-43-3312	.765	.187	1.000	.375	one	5400	BN-61-1802	.250	.050	.240	---	two	310
BN-43-7051	1.130	.250	1.130	.560	one	6000	BN-73-202	.525	.150	.550	.295	one	8500
BN-61-202	.525	.150	.550	.295	one	425	BN-73-2402	.275	.070	.240	.160	one	3750

Ferrite Bobbin Cores

Ferrite bobbins provide a convenient means of winding RF chokes. Because of their open magnetic path, they can handle more current than toroids of similar size. To aid in the design of such chokes, we have provided A_L values, a winding table, and ampere-turn ratings for each bobbin.



Winding table: number of turns to completely fill bobbin.

wire size	20	22	24	26	28	30	32	34	36
B-72-1111	9	14	23	35	56	88	164	205	400
wire size	20	22	24	26	28	30	32	34	36
B-72-1011	24	39	60	93	148	230	425	535	1050

BOBBIN DIMENSIONS

A_L value in mh/1000 turns

part number	A	B	C	D	F	A_L	NI
Bobbin # B-72-1111	.196"	.107"	.500"	.400"	#22	17	60
Bobbin # B-72-1011	.372"	.187"	.750"	.500"	#20	39	130

BOBBIN # B-72-1111 $A_L = 17$ NI = 60

Inductance	wire turns	wire size	l (max)
10 uh	24	24	2.50
25 uh	38	26	1.60
50 uh	54	28	1.10
100 uh	77	30	.78
250 uh	121	31	.50
500 uh	171	32	.35
1.0 mh	243	34	.25
2.5 mh	383	36	.16
5.0 mh	542	37	.11
10.0 mh	762	38	.08

BOBBIN # B-72-1011 $A_L = 39$ NI = 130

Inductance	wire turns	wire size	l (max)
25 uh	25	20	5.20
50 uh	36	22	3.60
100 uh	50	24	2.60
250 uh	80	26	1.60
500 uh	113	27	1.10
1.0 mh	160	28	.80
2.5 mh	253	30	.50
5.0 mh	358	32	.36
10.0 mh	506	34	.25
25.0 mh	800	36	.16