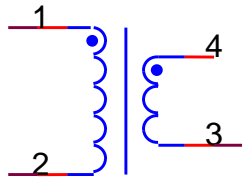


For fabrication sample

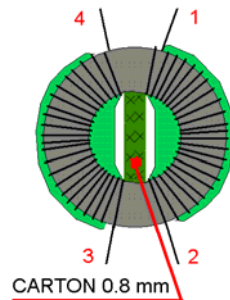
PLC Coupler Transformer ADDM.671331.240

S. Godina

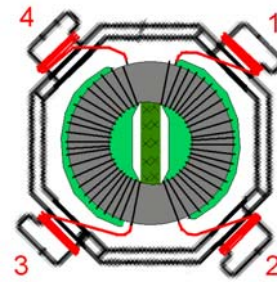
2008-05-07



Schema



Banked Coil



Case, Bottom view



Materials

Item Description

- [1] Core: Powder Ring 6.60-2.67-2.54 P/N 77240 Kool Mu ($A = 54$ nH/turn) (Magnetics)
- [2] Bobbin (Case): YC-CS-01S (Y.C.F.B.)
- [3] Magnet Wire: 40 AWG (0.08 mm), Solderable Double Coated
- [4] Magnet Wire: 37 AWG (0.11 mm), Solderable Double Coated
- [4] Carton, thickness 0.8 mm
- [5] Varnish

Primary Winding

Parameter	Section 1
Number of Turns	86
Wire Size, mm	0.08 mm (40 AWG)
Start Pin(s)	1
Termination Pin(s)	2

Secondary Windings

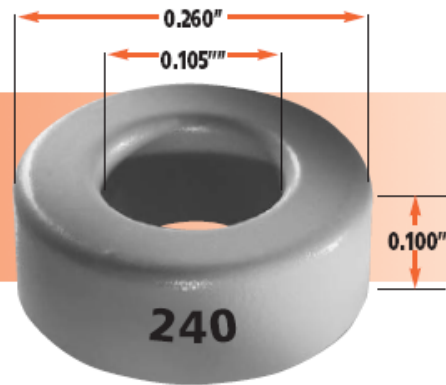
Parameter	Output 1
Number of Turns	43
Wire Size, mm	0.11 (37 AWG)
Start Pin(s)	4
Termination Pin(s)	3

Electrical Test Specifications

Parameter	Condition	Spec
Primary 1 – 2 Inductance, uH	Measured at 1 V pk-pk, typical switching frequency, between pin 1 to pin 2, with all other Windings open.	400 +/- 50
Secondary 4 – 3 Inductance, uH	Measured at 1 V pk-pk, typical switching frequency, between pin 4 to pin 3, with all other Windings open.	100 +/- 12
Total 1 – 2 + 4 – 3 Inductance, uH	Measured at 1 V pk-pk, typical switching frequency, between pin 1 to pin 3, with pins 2, 4 connect together	840 +/- 100
Total 1 – 2 + 3 – 4 Inductance, uH	Measured at 1 V pk-pk, typical switching frequency, between pin 1 to pin 4, with pins 2, 3 connect together	160 +/- 20
Electrical Strength, VAC	50 Hz 1 minute, from pins 1 - 2 to pins 4 – 3	1500

Core Informations:

6.60 mm O.D.
2.67 mm I.D. x 2.54 mm HT.



Core Dimensions (after finish)

O.D. (max.)	7.24 mm	0.285 in
I.D. (min.)	2.16 mm	0.085 in
HT. (max.)	3.18 mm	0.125 in

Permeability (μ)	$A_L \pm 8\%$ Kool M μ $A_L \pm 12\%$	Part Number			Nominal DC Resistance Ohms/mH*	B/NI Gauss per Amp. Turn*
		MPP	High Flux	Kool M μ		
14	6	55243	58243	-	14.22	12.9 (<1500 gauss)
26	11	55242	58242	-	7.76	24 (<1500 gauss)
60	26	55241	58241	77241	3.28	55.4 (<1500 gauss)
75	32	-	-	77245	-	-
90	39	-	-	77244	-	-
125	54	55240	58240	77240	1.58	116 (<1500 gauss)
160	69	55238	58238	-	1.24	148 (<1500 gauss)
200	86	55237	-	-	0.992	185 (<600 gauss)
300	130	55235	-	-	0.656	277 (<300 gauss)
550	242	55236	-	-	0.353	508 (<50 gauss)

Physical Characteristics

Window Area	0.0412 cm ²	8,100 c.mils
Cross Section	0.0476 cm ²	0.00738 in ²
Path Length	1.363 cm	0.537 in
Volume	0.0649 cm ³	0.00396 in ³
Weight- MPP	0.58 gm	0.0013 lb
Weight- High Flux	0.55 gm	0.0012 lb
Weight- Kool M μ	0.399 gm	0.00088 lb
Area Product	0.0020 cm ⁴	0.000047 in ⁴

Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	1.327 cm	0.0435 ft
60%	1.251 cm	0.0410 ft
40%	1.176 cm	0.0386 ft
20%	1.144 cm	0.0375 ft
0%	1.132 cm	0.0371 ft

Wound Coil Dimensions

Max. O.D. (u.w.f.)	9.12 mm	0.359 in
Max. HT. (u.w.f.)	5.13 mm	0.202 in

Surface Area

Unwound Core	0.264 in ²	1.70 cm ²
40% Winding Factor	0.357 in ²	2.3 cm ²

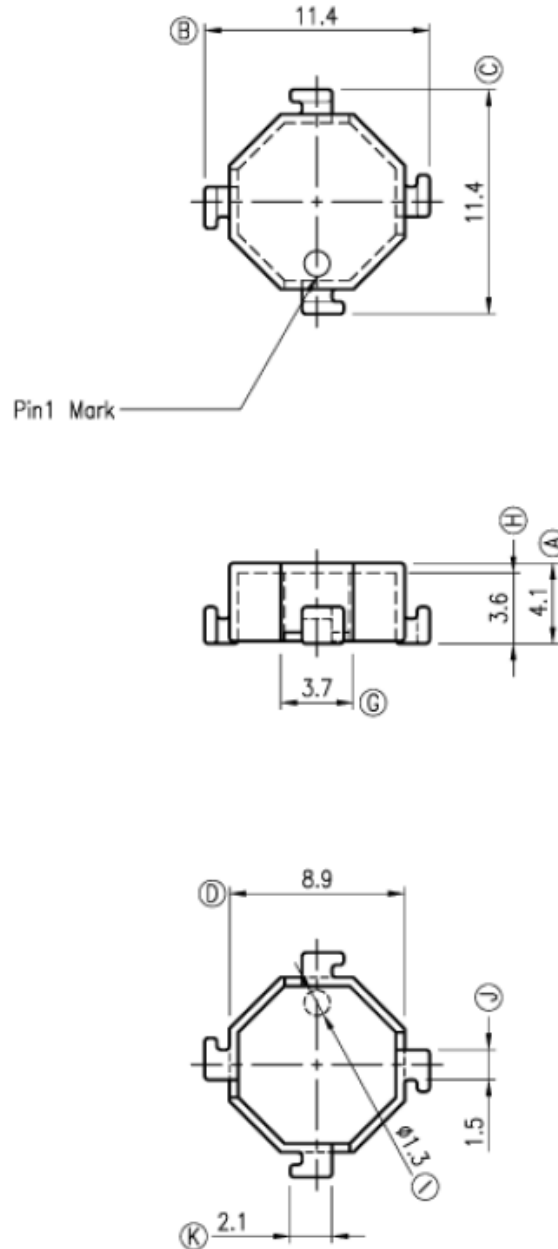
AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, Ω) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, Ω)
26	24	0.0425	12	0.0183
27	30	0.0671	14	0.0267
28	37	0.1046	16	0.0388
29	45	0.1609	18	0.0542
30	56	0.255	21	0.81
31	69	0.395	23	0.112
32	84	0.595	26	0.156
33	105	0.938	30	0.229
34	133	1.513	34	0.329
35	165	2.38	39	0.479
36	204	3.68	44	0.677
37	249	5.55	48	0.912
38	312	8.78	54	1.3
39	401	14.8	62	1.95
40	506	23.7	71	2.82
41	623	35.8	80	3.92
42	794	57.3	91	5.6
43	964	89.8	101	8.02
44	1110	125	110	10.6
45	1528	223	128	15.9

* These values are only applicable for MPP Cores.

Case Informations:



Part No. YC-CS-01S



Date	Revised Record
04.07.31	A/1

(台北) Tel : 886-2-29902896 Fax : 886-2-29906154
 (昆山) Tel : 86-520-7794588 Fax : 86-520-7794788
 (東莞) Tel : 86-769-5549610 Fax : 86-769-5549617

Model	CASE-01 SMD	Self Lead
Bobbin Material : PHENOLIC UL-94V-0		
Pin Material : ---		
PIN PITCH : -----	Tolerance : $0 < L \leq 4 \pm 0.1$ $4 < L \leq 16 \pm 0.2$ $16 < L \leq 60 \pm 0.3$	
Unit : mm		
File No : YC-F-584	Date : 2004.07.31	