

KV ELECTRONICS CO., LTD.

988 MOO 2, SOI THETSABAN BANG PU 60

TUMBOL THAI BAN , AMPHUR MUANG

SAMUTPRAKARN 10280

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E-MAIL : kvea@loxinfo.co.th

Customer name : Electronic source

Customer part no. : ES00251

Drawing no. :

Description : Transformer EE-13

KV no. : 18014

Revision : 00

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Issue date
2 February 2018

Check by

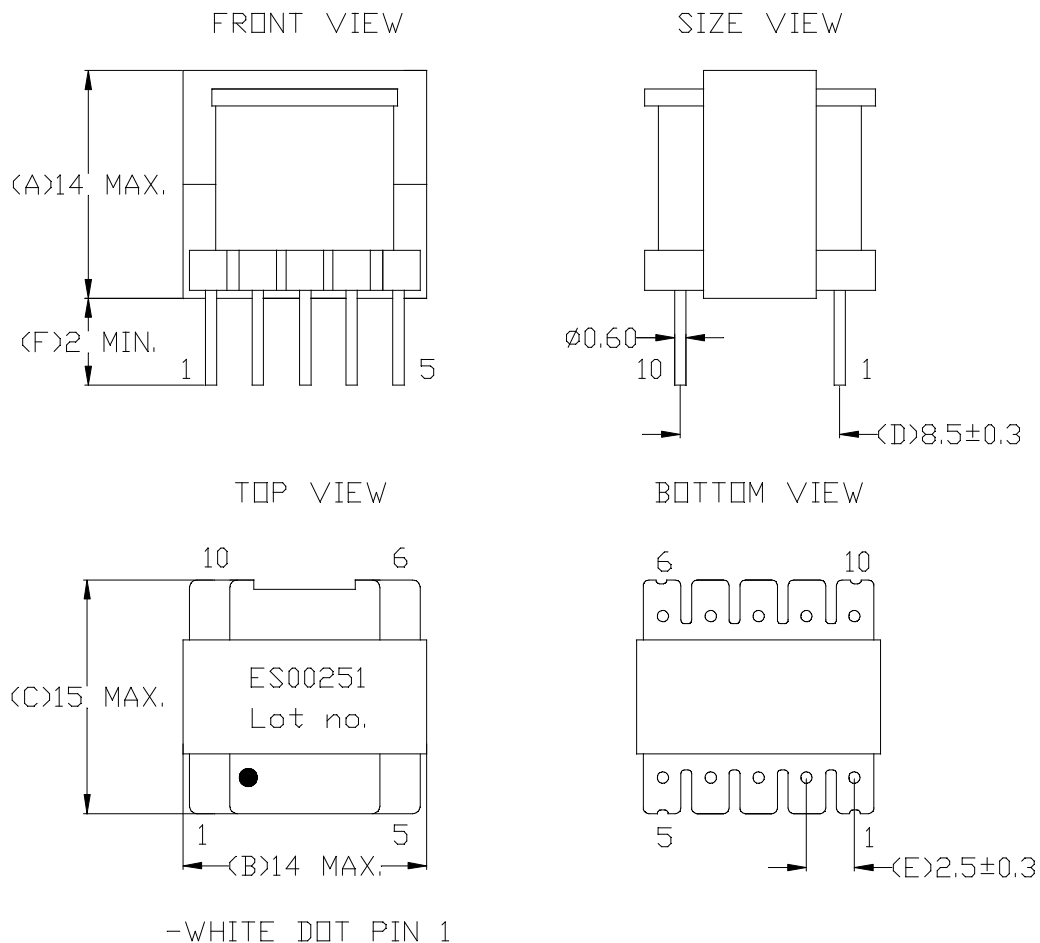
Approve by

Revise record.

Rev.	Date	Revise description	Page.

**1. Components list.**

<u>Item.</u>	<u>Material.</u>	<u>Manufacturer.</u>
1. Bobbin	Phenolic (UL94V-0)	Chang chun plastic co., ltd UL no. E59481(S). or equivalent.
2. Core EE13/12/6	PC40	Ou Ge or equivalent.
3. Copper wire	Polyurethane enameled copper (130 deg.c).	Thai hitachi enamel wire co., ltd. UL no. E137472. Pacific-Thai electric wire & cable co.,ltd. UL no. E142108. or equivalent.
4. Insulation tape	Polyester #1350F-1 (130 deg.c) Polyester #35660 (130 deg.c)	3M UL No.E17385. Symbio INC UL.no. E50292.
5. Solder bar	Sn / Cu	Ultra core or equivalent.
6. Varnish	Ultmeg 2000/380	A.E.V PLC UL no. E220579 or equivalent.

The drawing and dimension in millimeter unit.

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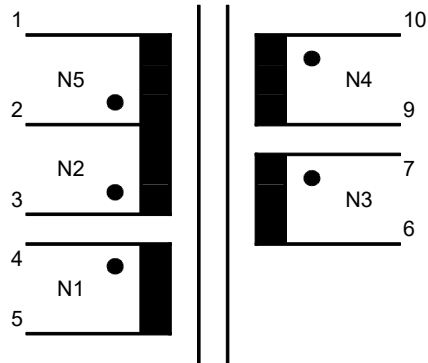
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2. Schematic diagram and winding instruction.



- N1 Pin 4 – 5 = Wire 0.25 mm. X2 / 14 Ts.
Insulation 2 Ts.
- N2 Pin 3 – 2 = Wire 0.32 mm. / 6 Ts.
Insulation 2 Ts.
- N3 Pin 7 – 6 = Wire 0.25 mm. X2 / 5 Ts.
Insulation 2 Ts.
- N4 Pin 10 – 9 = Wire 0.25 mm. X2 / 15 Ts.
Insulation 2 Ts.
- N5 Pin 2 – 1 = Wire 0.32 mm. / 6 Ts.
Insulation 2 Ts.

Note : CORE NO – GAP

3. Electricals specification and test data (at 25 deg.c).

Item	Pin no.	Specification	Test data									
			1	2	3	4	5					
Inductance (L) At 10KHz, 1V	3 – 1	110.00 uH Min.	135.25	130.86	126.40	127.60	137.70					
Leakaged Inductance At 10KHz, 1V (LK) (Shorted 4,5,6,7,9,10)	3 – 1	1,000 nH Max.	242	263	269	252	278					
DC-Resistance (DCR)	3 – 1	110.00 mOhm Max.	87.81	88.08	87.08	87.01	88.87					
Voltage ratio test. I/P 3-1, 20KHz, 1Vrms	4 – 5	1.125 – 1.208 Vrms	1.139	1.136	1.137	1.138	1.140					
	7 – 6	0.375 – 0.458 Vrms	0.408	0.406	0.407	0.407	0.408					
	10 – 9	1.208 – 1.291 Vrms	1.223	1.219	1.222	1.221	1.224					
Hi-Potential test. 1mA 50Hz	Apply 1000Vac between N1,N2,N5 to N3,N4 for 2 sec. Apply 500Vac between wire to core for 2 sec.								Passed Passed			
Phase check follow to schematic diagram.									Passed			

Mechanical test
Sample no.

	A	B	C	D	E	F
1	13.23	13.58	13.07	8.44	2.47	3
2	13.25	13.55	12.68	8.43	2.50	3
3	13.26	13.43	13.10	8.54	2.56	3
4	13.28	13.53	13.08	8.46	2.51	3
5	13.31	13.54	12.96	8.43	2.71	3

Test date : 6 February 2018

Test by : Apiwat