

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. : ES00118

Drawing no. :

Description : Transformer EF-25

KV no. : 13005

Revision : 01

Page 1 of 3

Issue date
8 January 2013

Check by

Approve by

Revise record.

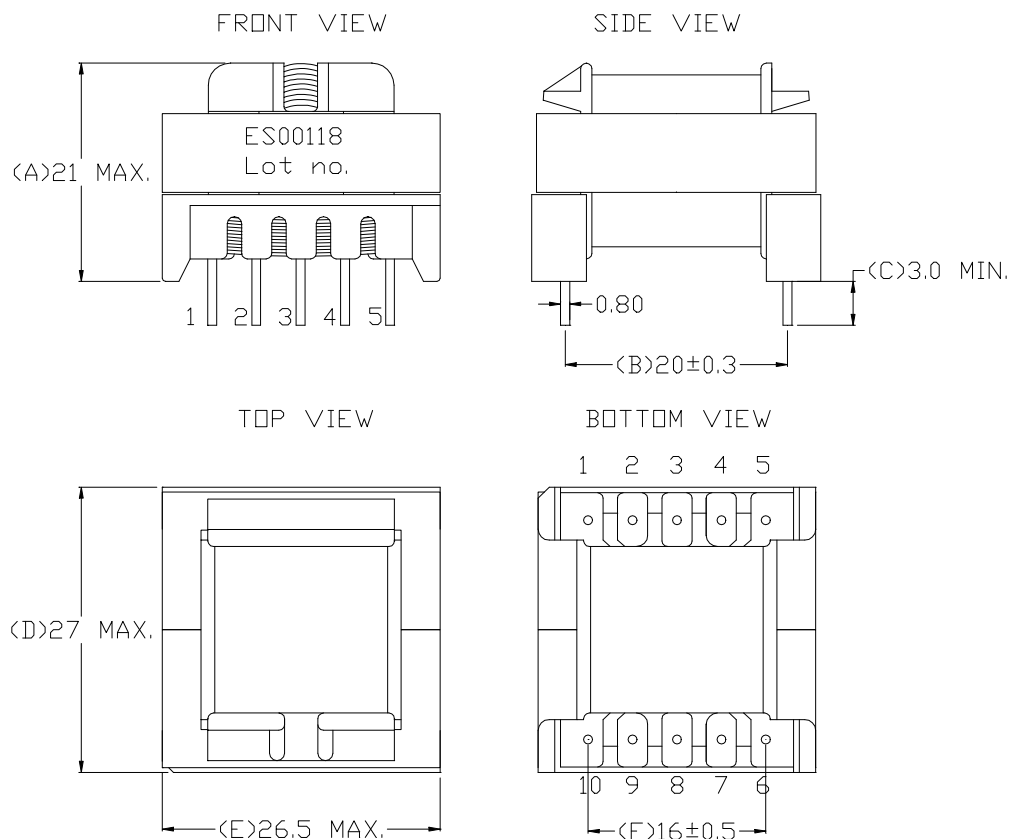
Rev.	Date	Revise description	Page.
01	26-Feb-14	- Add S2 Pin 8-9,10 = TEX-E Wire 0.40 mm. X3 Winding = 2 Ts. After Winding S1 - Add Voltage ratio test Pin 8 – 9,10 = 0.036 – 0.060Vrms.	3 3



1. Components list.

<u>Item.</u>	<u>Material.</u>	<u>Manufacturer.</u>
1. Bobbin	Phenolic (UL94V-0)	Hitachi Chemical Co.,Ltd. UL no. E42956. or equivalent.
2. Core EE-25	MB3	JFE 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. T.I.W. wire	Tripple insulating wire (130 deg.c)	Young chang silicone.co.,ltd UL no. E242198. Furukawa UL no. E206440. or equivalent.
5. Insulation tape	Polyester film insulating tape #1350F-1 Polyethylene-Terphthalate film insulating Tape #35660 (130 deg.c Flame retardant)	3M UL No.E17385. Symbio INC UL no. E50292.
6. Solder bar	Sn / Cu	Ultra core or equivalent.
7. Varnish	Ultimeg 2000/380	A.E.V PLC UL no. E220579 or equivalent.

The drawing and dimension in millimetre unit.



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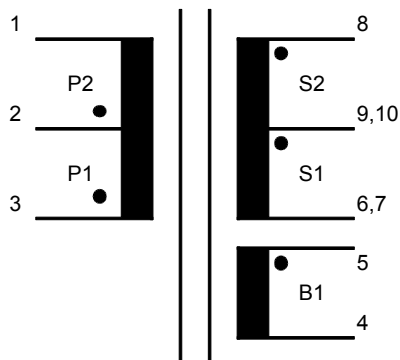
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Page 3 of 3



2. Schematic diagram and winding instruction.



- P1 Pin 3-2 = Wire 0.50 mm. / 21 Ts.
Insulation 1 Ts.
- B1 Pin 5-4 = Wire 0.45 mm. X2 / 5 Ts.
Insulation 3 Ts.
- S1 Pin 9,10-6,7 = TEX-E Wire 0.40 mm. X3 / 6 Ts.
Insulation 3 Ts.
- S2 Pin 8-9,10 = TEX-E Wire 0.40 mm. X3 / 2 Ts.
Insulation 3 Ts.
- P2 Pin 2-1 = Wire 0.50 mm. / 20 Ts.
Insulation 3 Ts.

Note:

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	291.00 uH +/-10%	279.90	265.60	279.60	277.10	287.90					
Leakaged Inductance At 10KHz, 1V (LK) (Shorted 4,5,6,7,9,10)	3 – 1	7.27 uH Max.	4.07	4.12	4.39	4.21	3.99					
DC-Resistance (DCR) @25 DEG.C	3 – 1	210.00 mOhm Max.	175.20	177.70	178.10	177.90	177.20					
Voltage ratio test. I/P 3-1, 20KHz, 1Vrms	5 – 4	0.109 – 0.134 Vrms	0.123	0.120	0.120	0.120	0.120					
	9,10 – 6,7	0.134 – 0.158 Vrms	0.149	0.146	0.145	0.145	0.145					
	8 – 9,10	0.036 – 0.060 Vrms	0.049	0.048	0.048	0.048	0.048					
Hi-Potential test. 1mA 50Hz	Apply 3000Vac between P1,P2,B1 to S1,S2 for 2 sec. Apply 1500Vac 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	20.23	20.15	4	25.99	25.59	15.81
2	19.94	20.05	4	25.93	25.55	15.86
3	20.18	20.25	4	26.14	25.30	15.84
4	19.50	20.10	4	26.22	25.29	15.80
5	20.11	20.22	4	26.10	25.61	15.70

Test date : 28 February 2014

Test by : Apiwat