

DESCRIPTION : FLYBACK CONVERTER FREQ. 55 KHz

MATERIALS	QUANTITY	VYCOM CODE	NOTE
Ferrite : ETD 29 / 16 / 10 mat. N87	1		
Foil: vertical 12 pin	1		
Clips:			NO
Side gap:	0.6 mm		YES
Central air gap:			YES
Copper wire : $\varnothing = 0.4$ and 0.8			SEE THE WORKING PHASES
Scotch tape:			SEE THE WORKING PHASES
Sterling:			SEE THE WORKING PHASES
Insulation tape:			SEE THE WORKING PHASES
Labels:		TRA291224	WHITE ADHESIVE LABEL

TESTING PROCEDURE :

- Inductance measure: between the pins (1 – 12) $L = 980\mu\text{H} +10\%-10\%$ (@ 55 KHz) fixing the gap around 0.6 mm on the side legs**
- MEASURE OF THE RESISTENCE: BETWEEN THE PINS N.A.
- MEASURE OF THE DISPERSION INDUCTANCE: BETWEEN THE PINS N.A.
- Measure of the relationship between coils and polarity : set No. of coils= 92 relating to the windings (1 - 12) and get the coils relative to the windings (2 – 11) (3 – 4 - 5) (10 – 9 - 8) with the polarity indicated in the electric scheme.
- DIELECTRIC STRENGTH : Apply 3000 VDC between pins 1 – 3 and 2 – 3 for 20 sec. (set the discharge flow at 1mA)

NOTES:

- IN ANY CASE USE ONLY UL94-V0 CERTIFIED MATERIALS.
- PAINT BATH FOR TRANSFORMERS.
- USE INSULATING SHEATH FOR THE ENTRY AND THE EXIT OF WIRES.

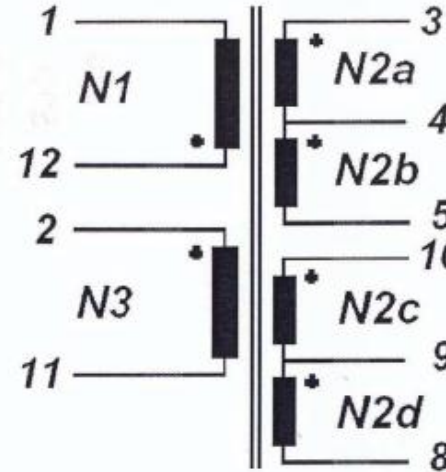
EDITED BY :
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MODIFIED ON :

DATE :
16/02/2011

WORKING PHASES:

WINDING SCHEME (THE NUMBER OF THE PINS IS THE SAME OF THE MANUFACTURER OF THE FOIL)



NOTES:

- EXECUTION OF THE TEST OF POINTS 1, 4, 5
- INSERT CODE NO. AND STAMPING
- IDENTIFY THE PIN NO.1 WITH WHITE PAINT

WINDING:

- N1 WINDING:** wind **46 coils** on with a **0.4 mm wire**, in order to make a complete layer, start in pin 12 and the end is free
- 3 insulating tape after N1a winding to have 3000 Vac insulating between primary and secondary
- N2a/N2b WINDING:** wind **5 coils on with 4 wires of 0.8 mm side by side**, in order to put side by side 20 wires on a complete layer. 2 wires in pin 4 and end in pin 5, the others 2 in pin 3 and end in pin 4
- 3 insulating tape after N2a/N2b winding to have 3000 Vac insulating between primary and secondary
- N1 WINDING:** with the free wire continue the N1 winding and wind on **46 coils** more, in order to make a complete layer. End in pin 1.
- 3 insulating tape after N1 winding to have 3000 Vac insulating between primary and secondary
- N2c/N2d WINDING:** wind **5 coils on with 4 wires of 0.8 mm side by side**, in order to put side by side 20 wires on a complete layer. 2 wires in pin 9 and end in pin 8, the others 2 in pin 10 and end in pin 9
- 3 insulating tape after N2c/N2d winding to have 3000 Vac insulating between primary and secondary
- N3 WINDING:** in the middle of the foil, wind **11 coils on with a 0.4 mm wire**, start in pin 2, end in pin 11
- 1 insulating tape for finish.