STABILISED POWER SUPPLIERS PS2/503 SERIES

General

These power suppliers accept an input of 240-volt mains and produce a stabilised d.c. output at 12 volts isolated from earth.

The PS2/503 is assembled on a CH1/11A chassis and the PS2/503A on a CH1/12B chassis with index-peg positions 1 and 6. Apart from this the two suppliers are identical.

General Specification

Mains Input	200 to 250 volts
Maximum Output Current	1 A
Ripple at Maximum Output (100 Hz)	less than 1 mV
Regulation	
Change of output voltage for 6% change in mains voltage	less than 10 mV
Output Resistance	less than 0·1 ohm

Special Note: When loading is well below the rated maximum the mains tapping can be left permanently on the 220-volt position. A special front-panel label should be fitted and inscribed *Input 200-250 V a.c. Output 12 V 0·5 A Maximum.*

Circuit Description

The circuit is shown in Fig. 1. The series stabilisers VT2 and VT3 are fed from a high-current d.c. supply and the shunt stabiliser VT1 from a separate higher-voltage d.c. supply. This arrangement enables R4 to have a high value and so increase the gain around the feedback loop. Otherwise the circuit is conventional.

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from DA 8419 iss 4
Parts List DA 9036

NOTE: RECTIFIERS MR1-MR4: TYPE OA81
RECTIFIERS MR5-MR8: TYPE SJ102-8

WHEN THIS UNIT IS USED ON
UN4/501 OR AMI/504, MAINS
CONNECTION ON T.I. TO BE 220V

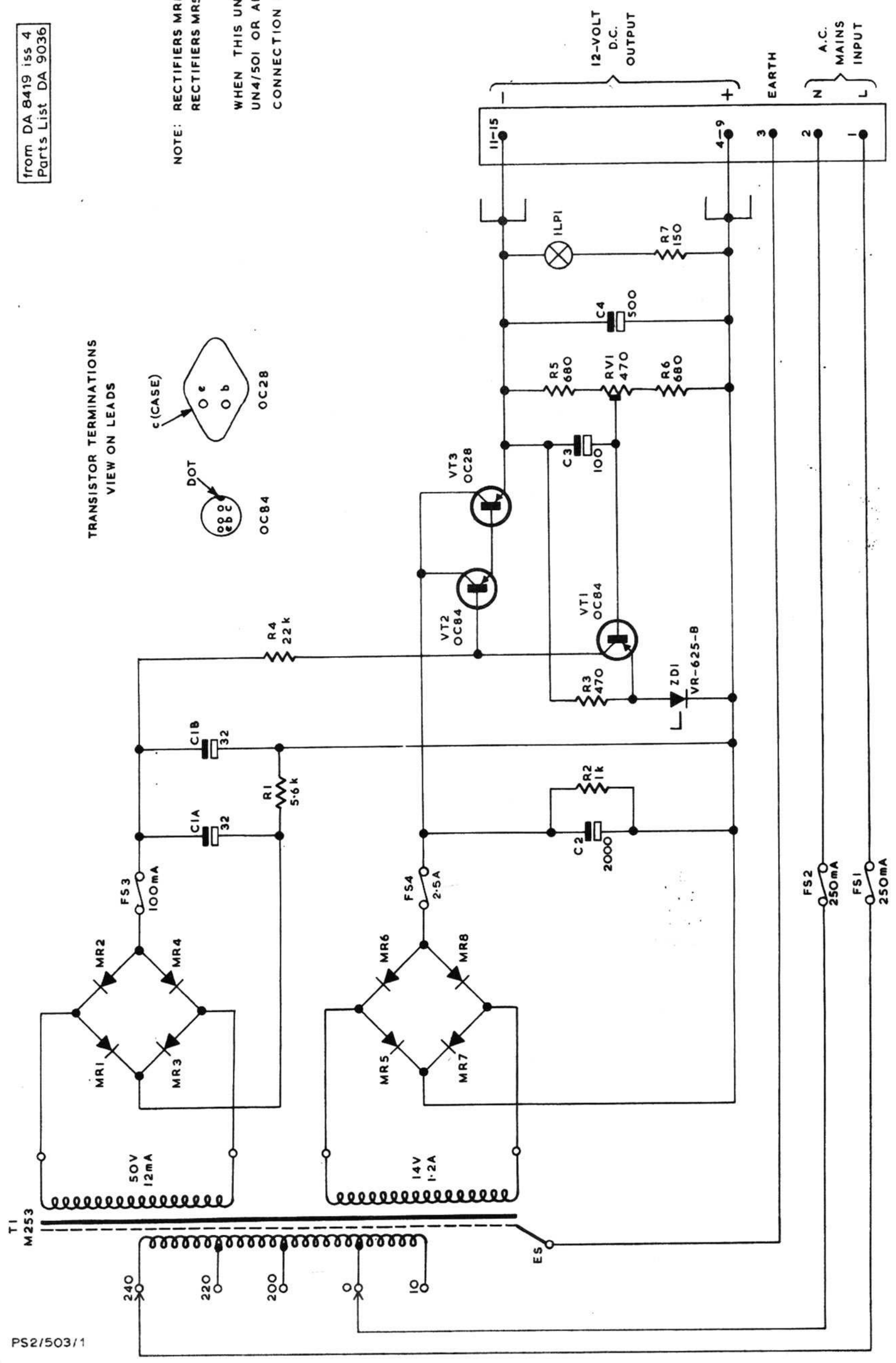


Fig. 1. Circuit of the PS2/503