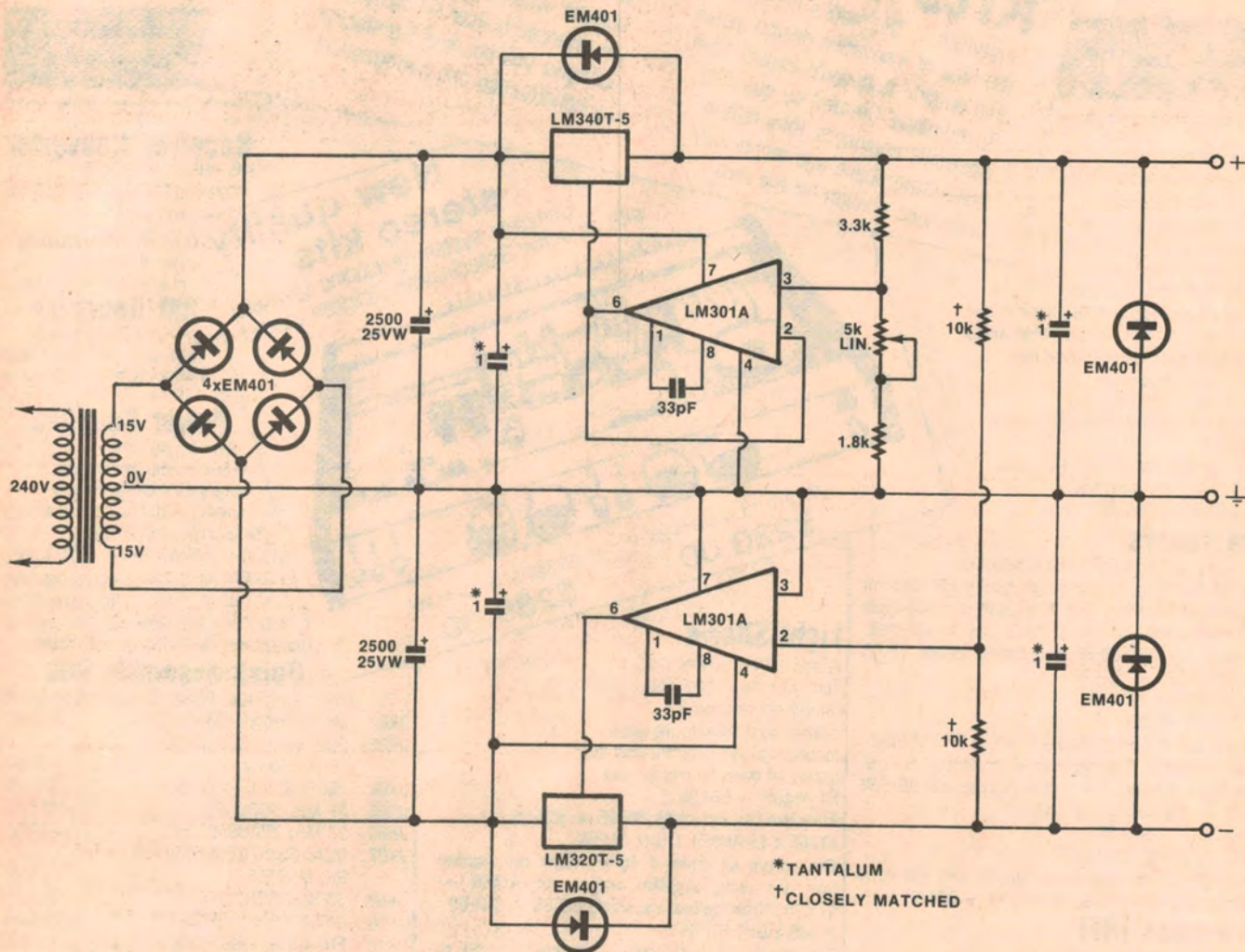


Circuit & Design Ideas

Conducted by Ian Pogson

Interesting circuit ideas and design notes selected from technical literature, reader contributions and staff jottings. As they have not necessarily been tested in our laboratory, responsibility cannot be accepted. Your contributions are welcome, and will be paid for if used.

Tracking dual voltage regulator



This circuit is for a tracking dual voltage regulator that may be constructed from readily available components. The voltage range obtainable is +8V to +15V, giving a usable 250mA at +15V and higher output currents at lower voltages.

For currents up to 250mA only marginal heatsinking of the three terminal regulators is required, about

25°C/W. For currents above this a 10°C/W heatsink is needed for each device. The regulator will tolerate short circuits but prolonged short circuits are to be avoided, even if the three terminal regulators are well heatsinked. This is because of excessive dissipation in the power transformer.

Provided that the system is operated within its limits good regulation, ripple

rejection and trackability will be achieved. Provided also that the 10k voltage divider resistors are closely enough matched, trackability should be better than +10mV over the +8V to +15V range.

(By Mr L. Murakami, Unit 19 Annette Lodge, 368 Military Road, Tennyson, SA 5022.)