

### SECTION 26

### HIGH SPEED SWITCH UNIT UN9/526

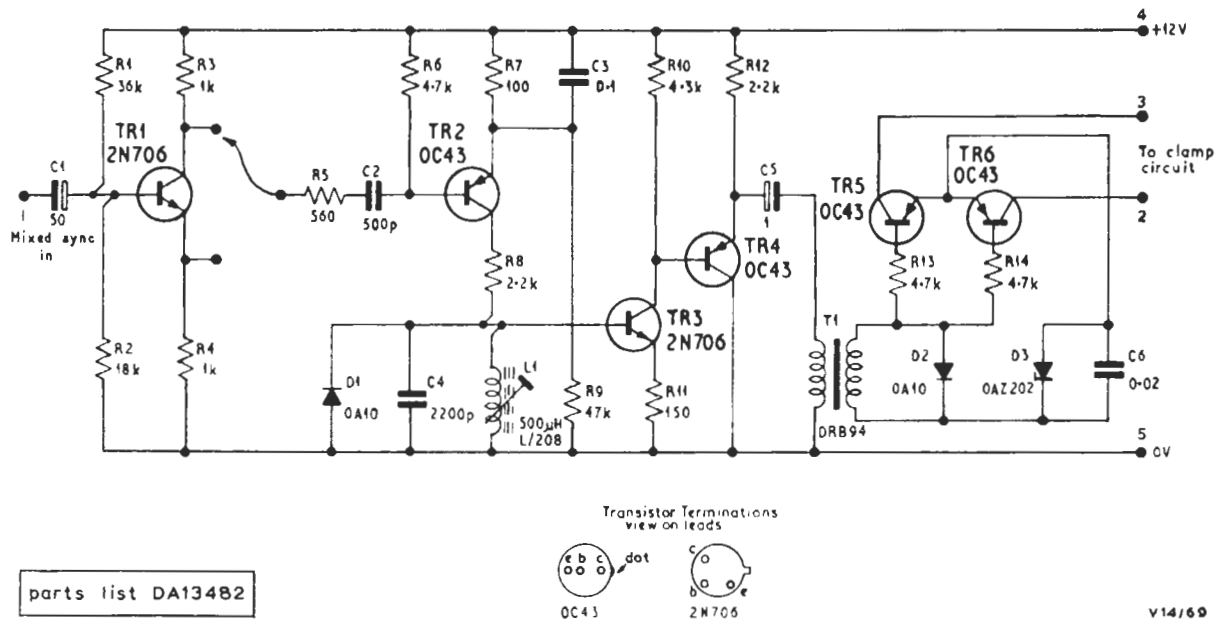


Fig. 26.1 Circuit of the UN9/526

#### Introduction

The UN9/526 contains a clamp circuit and its driving amplifier which can be driven by a 2-volt input pulse of either polarity. The duration of the clamping pulse is variable over the range 1.5  $\mu$ s to 2.2  $\mu$ s. The UN9/526 is used as part of a UN1/525 (unit 4A).

The UN9/526 is constructed on a printed wiring board 2 in. by 4.4 in.

#### Circuit Description

The circuit of the UN9/526 is given in Fig. 26.1. The input pulse is differentiated by capacitor C2 and the input resistance of transistor TR2. To obtain a negative-going transition from the desired

pulse edge the appropriate output of the phase splitter TR1 is selected by means of a wire link.

The negative-going pulse at the base of TR2 causes this transistor to conduct. The current pulse in the collector tuned circuit is limited to one half-cycle by diode D1. The period of the pulse is set by the variable inductor L1.

This clamping pulse is amplified and fed to the bases of the clamp transistors TR5 and TR6 thereby reducing the impedance between the collectors to a very low value for the duration of the pulse.

#### Test Procedure

The UN9/526 is tested as part of a UN1/525.

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