OUTPUT HIGH-SPEED SWITCH UN9/559

The UN9/559 comprises a balanced emitter-follower amplifier and one stage of a shift register. It is constructed on a printed wiring card 4 inches by 3 inches.

The circuit diagram of the UN9/559 is given in Fig. 1. The amplifier has two parallel complementary emitter followers TR2 and TR3 feeding two series-connected complementary emitter followers TR4 and TR5. Inductor L1 improves the rise-time of the output waveform across the intermediate store capacitor C10.

Clock pulses are fed to a blocking oscillator TR1 via a diode switch diodes D1 to D4. These diodes are switched on by a hand-in pulse from a previous stage. The voltage across zener diode D5 and capacitor C2 during the hand-in pulse provides a reverse bias for the diodes between hand-in pulses. One output of the blocking oscillator is arranged to feed a diode switch, diodes D7 to D10, in series with the output of the amplifier. A second, hand-on, output is used as the hand-in input of a following stage.

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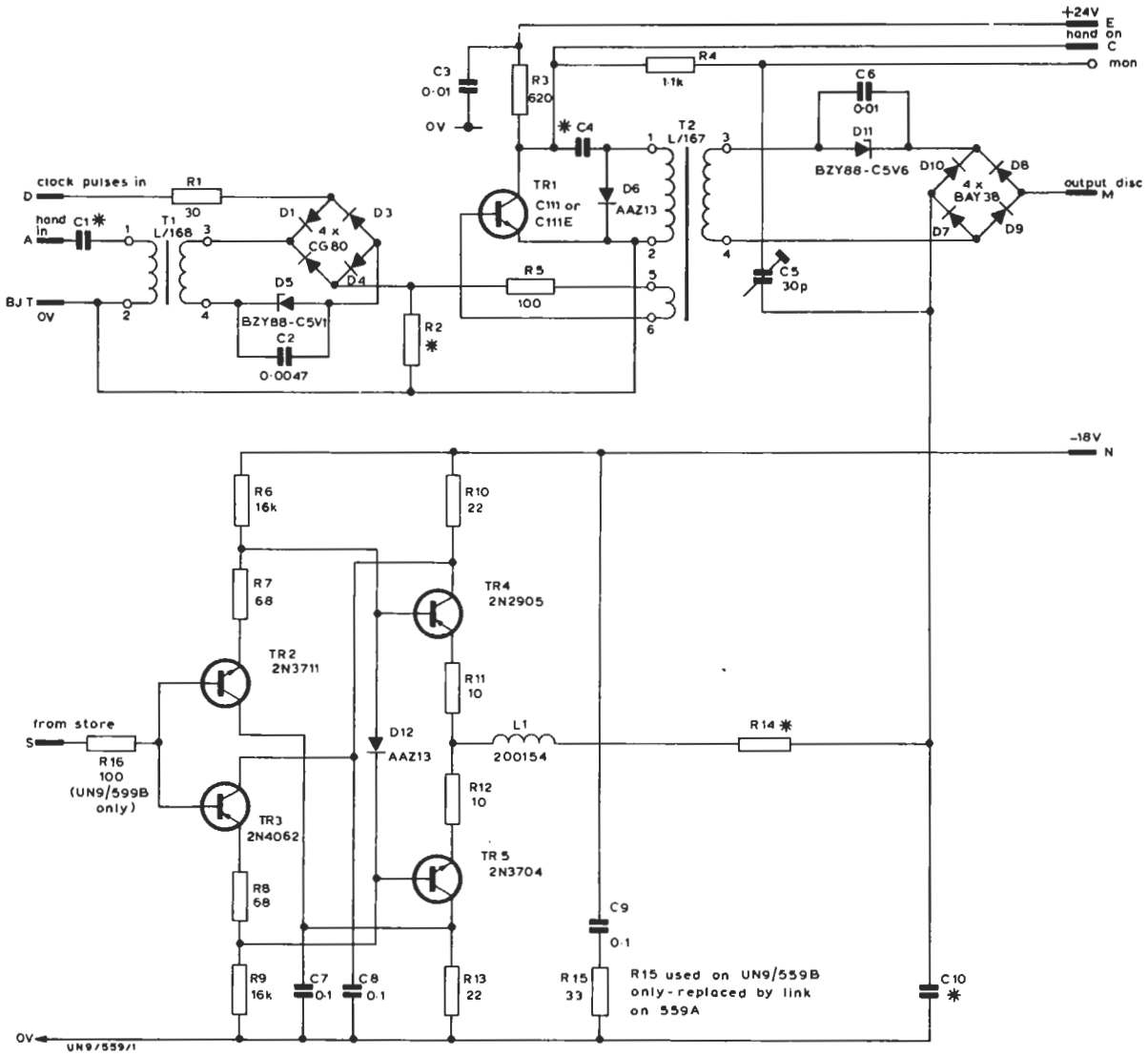
See overleaf for Fig. 1



from D21878 A3 parts list D21879 A4		
CCT REF	UN9/559A	UN9/559B
C1	100 pf	220 pf
C4	510 pf	0·001 µf
C10	510 pf	820 pf
R2	270	150
R14	360	270

see components marked ✱

Note
Diodes D7, D9 and D8, D10 are selected matched pairs

Fig 1 Circuit of the Output High-Speed Switch UN9/559