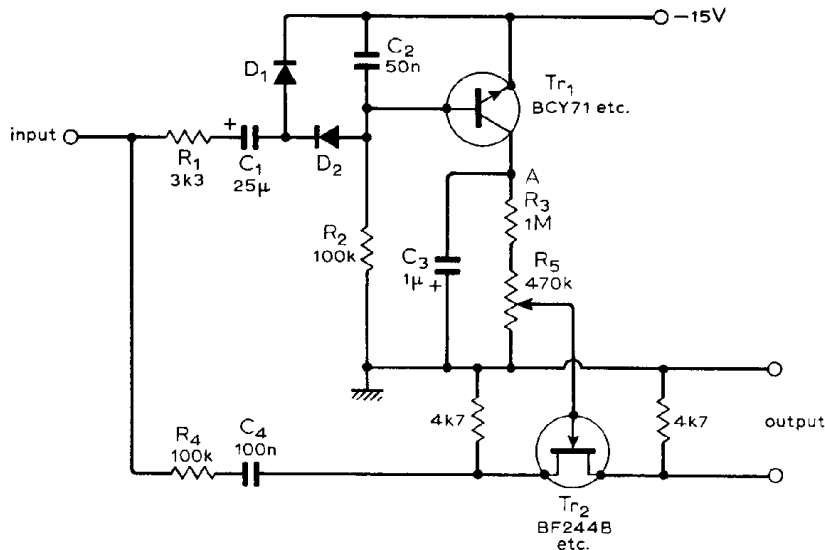


Electronic organ to piano

A circuit was needed which would simply convert an organ to a more piano-like instrument. It exponentially attenuates the output from an oscillator to zero in a manner adequate to mimic the waveform of a piano. In addition this circuit has the advantage of being self-triggering. Thus the exponential decay starts only when the waveform from a multivibrator is applied—dispensing with the need for extra contacts on the keyboard. It has been used in conjunction with the J. H. Asbery multiphonic organ published in the June 1973 issue of *Wireless World*, although it has many other applications.

Operation of the circuit is as follows: when no signal is being applied, R_2 draws a current through Tr_1 thus biasing it on and maintaining the voltage at A at supply potential. Application of a signal results in Tr_1 turning off—due to the rectifying and smoothing action of D_1 , D_2 and C_2 . Capacitor C_3 then discharges through R_3 and R_5 .



The f.e.t. gate is controlled by this discharging capacitor. Potentiometer R_5 ensures the f.e.t. just switches off when C_3 is fully discharged. When the signal is removed Tr_1 conducts, C_3 charges and so

rapid manipulation of the keyboard is possible.

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