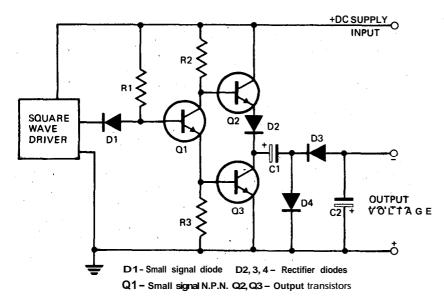
TRANSFORMERLESS INVERTER



This transformerless inverter chops the dc supply voltage then rectifies the

resulting square wave using a conventional voltage doubling circuit.

The square wave source can be a, simple IC multivibrator which is used to drive phase splitter Q1 through coupling diode D1. Base bias is established through R1 and the collector and emitter load resistors are R2 and R3 respectively.

The output power transistors Q2 and Q3 in conjunction, with diode D2, serve as a simple high level switch developing a square wave whose peak to peak amplitude is near that of the dc supply voltage.

The output square-wave is coupled via CI (which must be a suitably chosen high-value electrolytic) and fed into a voltage doubler circuit thus producing a dc output of reverse polarity.

Capacitor C2 is the output ripple filter.

Resistor values are dependent on the original supply voltage – the drive frequency is not critical but signals in the kilohertz region are preferred (2-6 kHz).