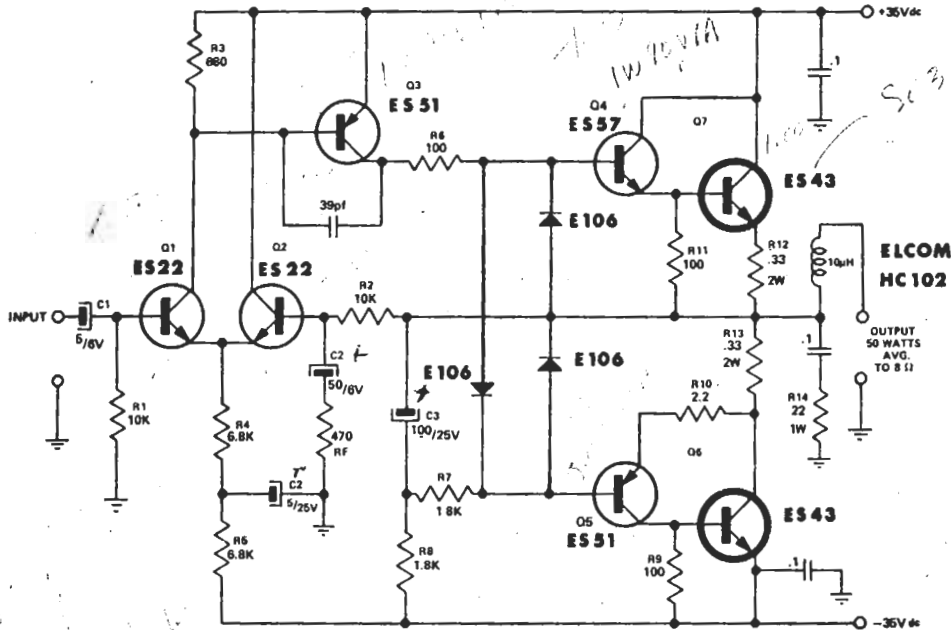


DIRECT-COUPLED 50-WATT AUDIO AMPLIFIER

A high-fidelity 50-watt audio amplifier has been designed. This amplifier is direct-coupled with a quasi-complementary output stage. Flat frequency response and low distortion are its outstanding attributes. An additional feature of importance is that a minimum number of circuit components are required to achieve a practical circuit with temperature stability.



SPECIFICATIONS:

Rated Output:	50 W average into 8 ohms.
Sensitivity:	1.0 V rms into 10 K ohms for rated output.
Distortion:	Total harmonic distortion < 0.1% at 1 kHz up to rated output. Intermodulation distortion < 0.2% at 60 Hz and 6 kHz (4:1 ratio) up to rated output.
Frequency Response:	- 1.0 dB from 15 Hz to 100 kHz at rated output.
Hum and Noise:	> 80 dB below rated output.

NOTE: All resistors 0.5 W unless otherwise stated.
 Q4 and Q5 mounted on Elcom heat sink 3AL680-2R.
 Q6 and Q7 mounted on Delco heat sink 7281366
 Q1 and Q2 must be matched for equal V_{EB} at $I_C = 2.7 \text{ mA} \pm 0.5 \text{ mA}$.