

(OA time: 23.1 μ)

(Op time: 3.5 μ - 10.5 μ)

$$R_7 = 50k + 100k P_{out} \quad R_6 = 330k$$

$$R_7 = 86k \quad R_6 = 344k$$

$$D = \frac{R_7}{R_7 + R_6} = 0.2$$
$$R_7 + R_6 = 430k \quad R_7 = 344k \quad R_6 = 86k$$

$$T = 0.7(C_7)(R_7 + R_6) \approx 30\mu \quad C_7 = 10\mu \quad 100\mu$$

$$R_5 = 100k$$

$$C_1 = 1\mu \quad C_3 = 0.01\mu$$

$$R_1 = 10k \quad R_2 = 50k : f(24 - 144 Hz)$$

$$R_4 = 5k \quad (0 - 550\mu)$$

$$C_4 = 0.1\mu \quad C_1 = 1\mu$$

$$C_5, C_2 = 10\mu$$

$$(U_1).f = 1.1(R_4)(C_4) \approx 300\mu$$

$$(U_2).f = \frac{1}{1n_2 \cdot C_1 \cdot R_2}$$

$$R_3 = 1\mu \quad D_1 = 1nA18.$$

$$C_4 = 0.1\mu \quad C_1 = 1\mu$$

$$C_5, C_2 = 10\mu$$

Q<sub>2</sub> = N-FET (FETSO-N06L)

Q<sub>1</sub> = NPN (2N2222A)

$$P(R_3) = 0.03W$$

$$P_3 = 0.5 I_{out}, \quad P = 0.25 P_3$$

$$R_1 = 100k, 144\mu$$

$$R_2 = 5k, 100\mu$$

$$R_3 = 1\mu, 100\mu$$

$$R_4 = 5k, 100\mu$$

$$R_5 = 100k, 100\mu$$

$$R_6 = 330k, 100\mu$$

$$R_7 = 86k, 100\mu$$

$$R_8 = 344k, 100\mu$$

$$C_1 = 1\mu, 100\mu$$

$$C_2 = 10\mu, 100\mu$$

$$C_3 = 0.01\mu, 100\mu$$

$$C_4 = 0.1\mu, 100\mu$$

$$C_5 = 10\mu, 100\mu$$

$$C_6 = 100\mu, 100\mu$$

$$C_7 = 100\mu, 100\mu$$

$$C_8 = 100\mu, 100\mu$$

$$C_9 = 100\mu, 100\mu$$

$$C_{10} = 100\mu, 100\mu$$

$$C_{11} = 100\mu, 100\mu$$

$$C_{12} = 100\mu, 100\mu$$

$$C_{13} = 100\mu, 100\mu$$

$$C_{14} = 100\mu, 100\mu$$

$$C_{15} = 100\mu, 100\mu$$

$$C_{16} = 100\mu, 100\mu$$

$$C_{17} = 100\mu, 100\mu$$

$$C_{18} = 100\mu, 100\mu$$

$$C_{19} = 100\mu, 100\mu$$

$$C_{20} = 100\mu, 100\mu$$

$$C_{21} = 100\mu, 100\mu$$

$$C_{22} = 100\mu, 100\mu$$

$$C_{23} = 100\mu, 100\mu$$

$$C_{24} = 100\mu, 100\mu$$

$$C_{25} = 100\mu, 100\mu$$

$$C_{26} = 100\mu, 100\mu$$

$$C_{27} = 100\mu, 100\mu$$

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