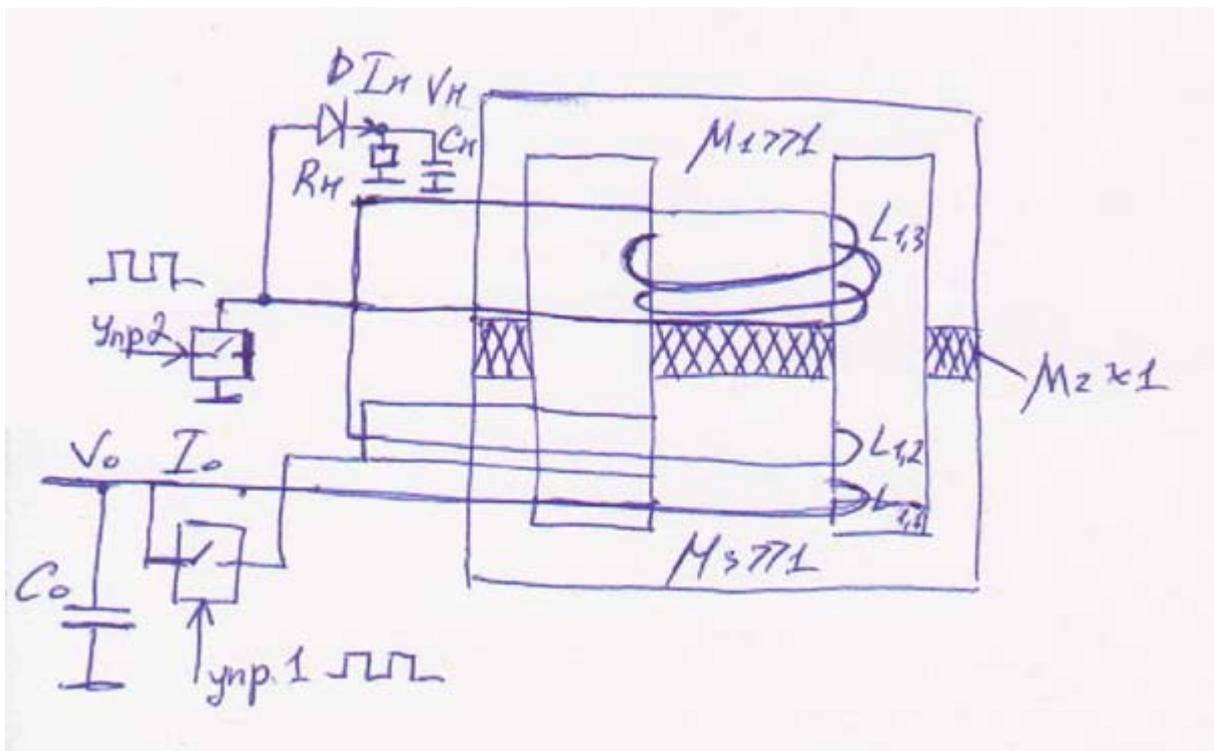


Because $\mu_3 > \mu_1$ it is at the same current flows through all three coils, this occurs when the magnetic induction $\beta_\epsilon = \beta_1 + \beta_2$ in the core is dominated by a large μ ie: core with μ_3 . When shorting $L_{1,1}$ in this case a short circuit occurs. Through key S current flows limited quantities sufficient to expel the magnetic field from a higher permeability, in a region with lower permeability μ_3 Explanation of allowed values μ_1, μ_2, μ_3 $\mu_1, \mu_3 > 1$ means that the magnetic field is concentrated mainly in the core of the magnetic material. Area with μ_2 corresponding to the dielectric material is the transition between μ_1, μ_3 and prevents abnormal changes of magnetic induction, which in normal cases leads to the conversion of electromagnetic energy into heat.

EXPERIMENTAL SETUP DIAGRAM

The purpose of this installation is to place them in the definition of its processes as well as a comparison of the energy balance.



$$W_1 = P_0 T_2, W_2 = P_H T_2$$

at

$$\frac{W_1}{W_2} = \frac{P_0}{P_H}$$

Upr.2 antiphase with respect to upr.1

Upr.1 to reduce losses in the coils of the winding must be done in a few wires for reducing the influence of the skin effect. Litz wire in this case is not suitable, because it has a small section of the cross-section of the conductor. Surface effect usually occurs only at high frequencies $f_p > 10RtrS$ and significant values of currents $I_p > 100mA$. In this case, even when switching from a frequency of 5 kHz, there are harmonic components at frequencies much greater than 10 kHz. The first experiment with a key type bipolar transistor KT805A, spectrum analyzer was recorded 10th harmonic $F_{A0} = 50KHz$ at the level 20dB. And the replacement of the transistor at a fast and modern, such as KT864A level 10th harmonic was 17.5 dB, which confirms the need to consider the effect of the surface. As the core material μ_1 ferrite type selected W 7 X 7 magnetic permeability $\mu = 1000$, the second half of the same ferrite magnetic core with a $\mu = 2000$. Dielectric was used for Electrotechnical cardboard, $\mu_{1,2}$. Given the heterogeneity of the resulting core complex structure empirically established the following values of real magnetic permeability: $\mu_1 \approx 50, \mu_3 \approx 70$ the shorted $L1,1 \mu_\varepsilon = 40$. $L1,1, L1,2$ contain 50 turns of wire consisting of three stacked conductors $SEW - 2 0,33$. $L1,3$ First experiment comprises 100 turns of the same wire. In the course of the experiments it was found that P_H more dependent on $L1,3$ than P_O This means that $\Delta P_H > \Delta P_O$. With minimal warming in chains commutation, if they $\frac{P_H}{P_O} \approx >$ 1 have the same sign, then $\Delta P_H > P_O$ it may be $P_O > 1$, which is inexplicable in terms of expended and received energy (energy conservation)