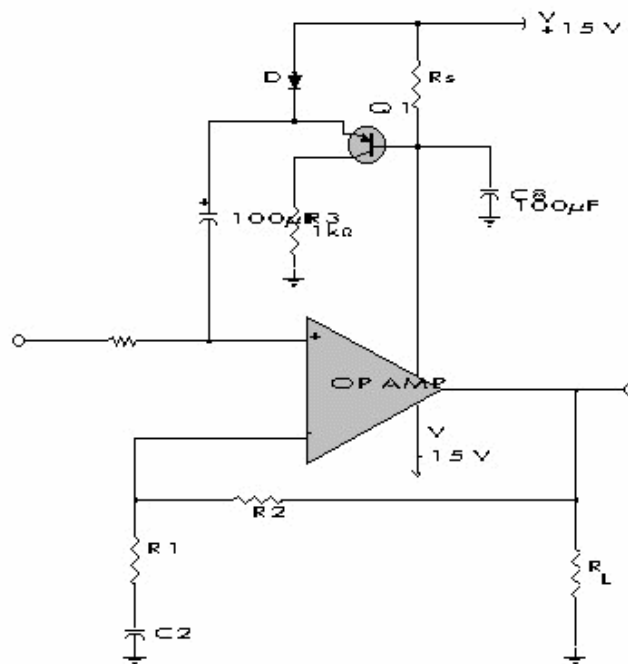


Automatic Level Control Circuits



Description:

This circuit is an AGC system for audio-frequency signals. AGC systems usually consist of three parts: an amplifier, rectifier, and controlled impedance. In this circuit the functions of an amplifier and a rectifier are performed by a single op amp. This makes the system simple and cheap. The rectifier is made with the output push-pull cascade of the op amp and R_s , R_L , and C_B . The transistor Q_1 and D_1 are used as a voltage-controlled resistance (Z). The input signal is $(Z+R_1)/Z$ times, diminished by the voltage divider and $1+R_2/R_1$ times, amplified by the op amp. C_2 eliminates influence of dc bias voltage. R_3 protects Q_1 and D_1 from excessive current.