



Category: FET

CIRCUIT IDEAS FOR DESIGNERS

Schematic no. fet_11127.0

FET Gain Stage with Emitter Follower and Gain Control

Description

The basic circuit starts as a simple common source amplifier. The input impedance is set by R_I , the output impedance by R_L and the gain is approximately $g_m \times R_L$. The bias is set by source resistance, which is the current source Q_2 - R_2 and the addition of a FET Q_4 used as a variable load resistor. One disadvantage of this circuit is that the follower circuit input impedance can reduce the gain. This problem is minimized by the circuit shown above where an emitter follower Q_3 - R_4 is used in place of the load resistance to reduce the output impedance and keep the gain more independent of the follower stage input impedance.

For full schematic diagram and notes, please register and login at aldinc.com