



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 RI, the output impedance by RL and the gain is approximately $g_m \times RL$. The bias is set by source resistance, which is the current source Q2-R2 and the addition of a FET Q4 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 Q3-R4 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

©2016 Advanced Linear Devices, Inc. Information furnished by Advanced Linear Devices, Inc. (ALD) is believed to be accurate and reliable. However, ALD assumes no responsibility for the use of such information nor for any infringement of patent or rights of third parties that may result from its use. No license is granted implication or otherwise under any patent rights of ALD.