



Category: FET

CIRCUIT IDEAS FOR DESIGNERS

Schematic no. fet_11134.0

Small Signal Full Wave Synchronous Rectifier

Description

This circuit is a full wave rectifier for small signals. It is superior to diode types at lower signal levels. The full wave rectification can be used as an AM detector, if C is small to not shunt the audio to ground, or as a method of measuring small AC signals with a DC measuring device.

The circuit is similar to synchronous rectifier methods used in the early days of DC-DC converts. Transformer coils marked N and M are set to transfer the best signal level to the output. Coils marked P are to turn on the transistors when that end of the secondary is positive. The number of turns on P sets the high and low signal amplitude limits. If the number is small, the transistors do not turn on at low signal levels. If the number is large, the maximum V_{gs} is reached at low signal levels. This circuit can be used in SWR bridges or field strength meters for low power transmitters.

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