Test configuration

Ups=+-33V from Lab supply with Imax=+-5A
Rl= 8R and 4R
darlington output with bootstrapping
driver transistors BD139/BD140
Input and VAS acc. to QUAD schematic (new input stage not used)

Amp is stable even with RL=4 Ohm with drivers BD139/BD140 (best choice).
With drivers MJE15030/MJE15031 more overshot occurs.
Drivers 2SC4793/2SA1837 will be tested soon.
With MJE340/MJE350 (used for Blameless amp) a ringing occurs with square wave signal (see picture). The only way to suppress this ringing is an input filter R=1k C=1n with f(-3db)=160KHz.
So not all drivers show the same result.

C=100n...220n/R=100 between Emitter of both driver transistors (suggested by Symon) improves stability. It’s not necessary to do both.

The alternate compensation (C=100p, C=500p, R=1k5) does not improve stability it even gets a little worse.

The following changes didn't affect stability:

Using a CCS-VAS (simple 2 transistor CS used in Blameless Amp) instead of BS-VAS

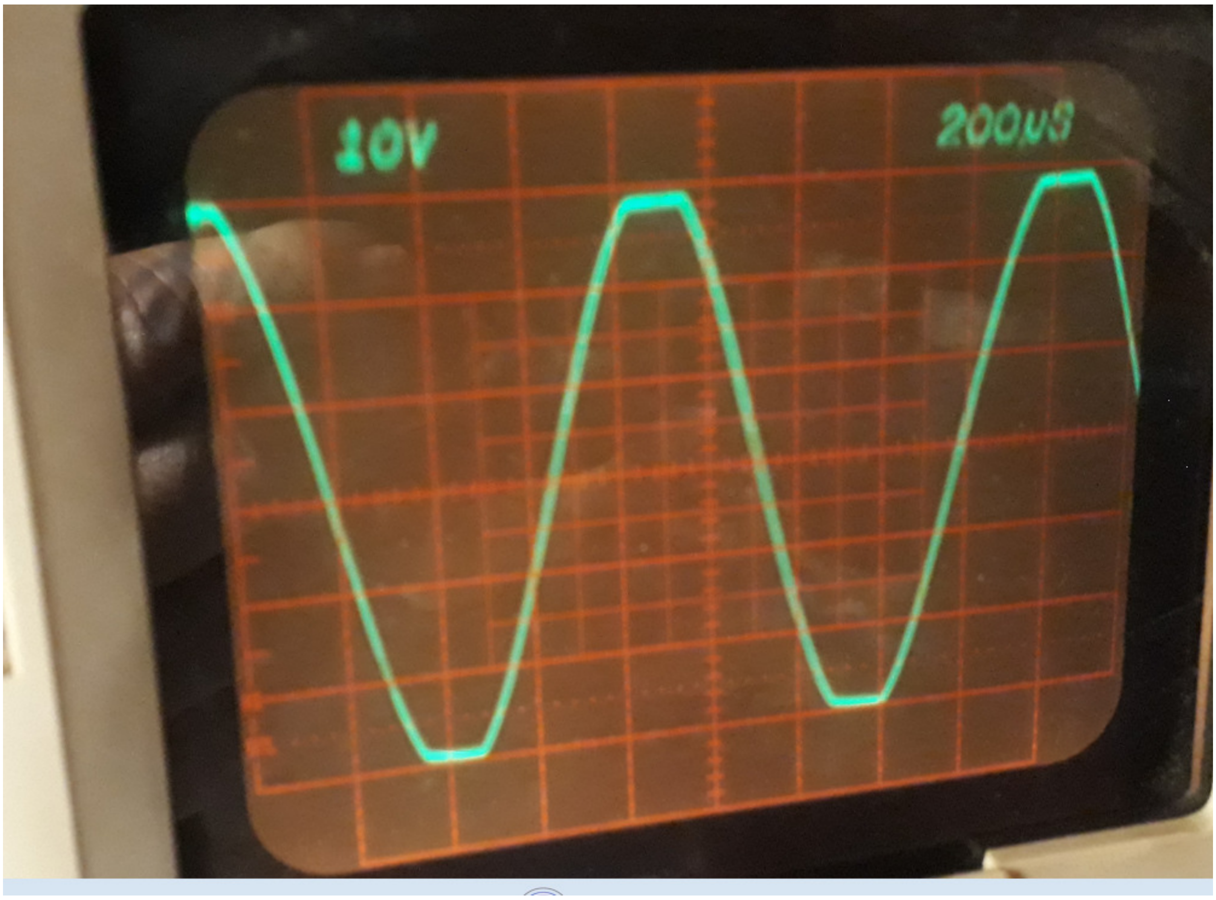
R=2k between sources of the MOSFETs

Emitter resistors
RE=0R1 ..0R47

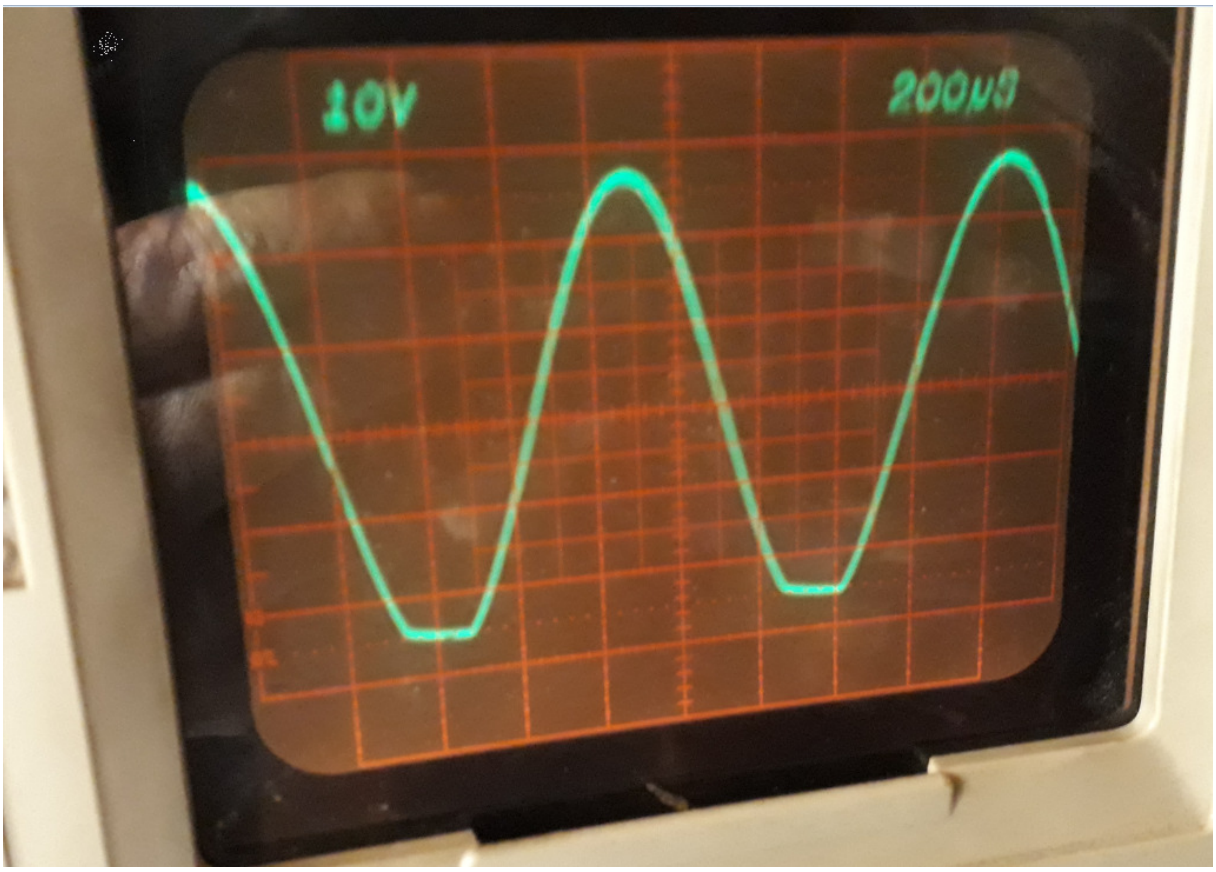
MOSFETs with different Rdson
IRFP240 (0.16Ohm) and
IRFP9240 (0.5Ohm)
Test: IRFP9240 replaced by IRF9530 (0.2Ohm) no change

The most difference to other amps is the sensitivity to input frequencies above 100KHz (RL=8 Ohm) and 50KHz (RL=4 Ohm) even with low output levels.
The output signal is completely distorted and the power supply limit of +-5A is reached, I guess a heavy current from plus rail via output transistors to minus rail (see last picture)

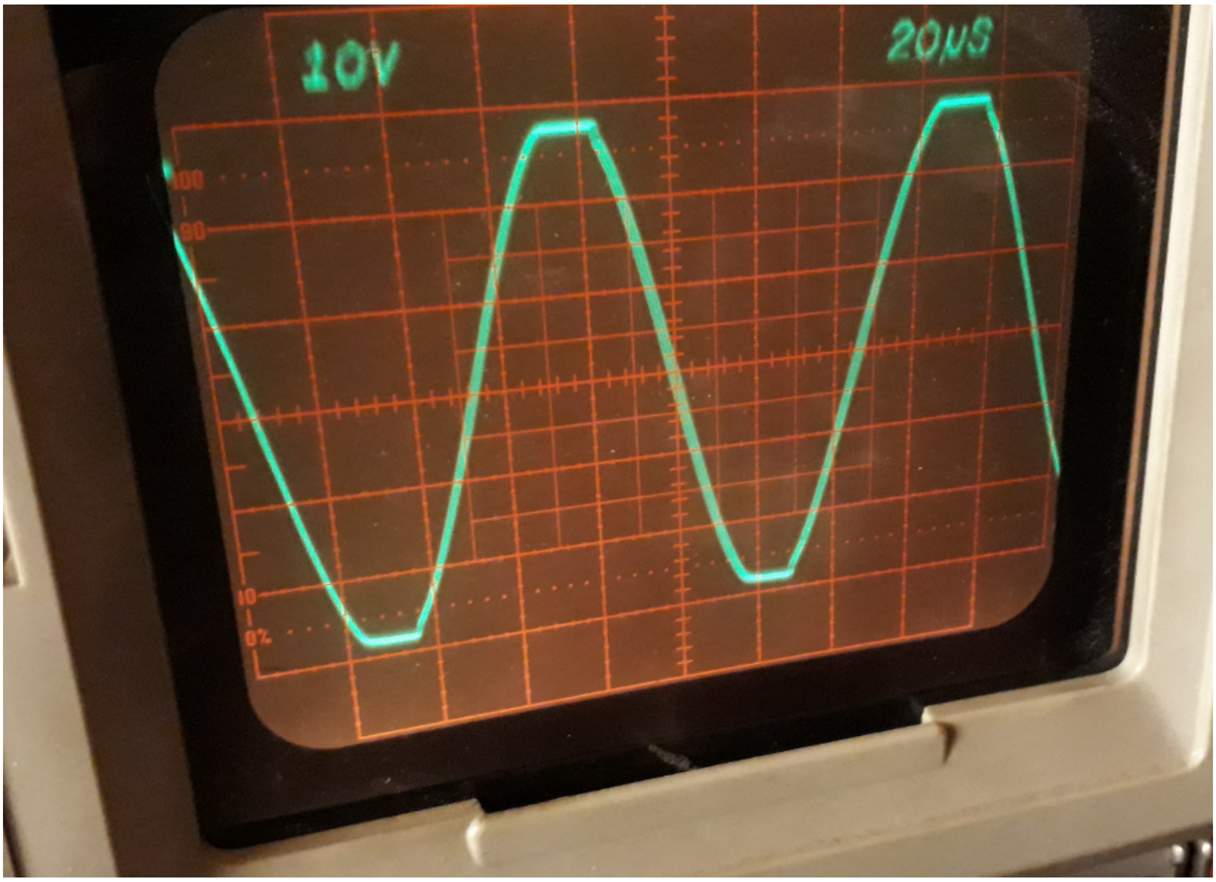
Usually an amp acts as low pass filter (50…500KHz) with reduction of sine wave amplitude and keeping the sine wave shape. The amp keeps stable



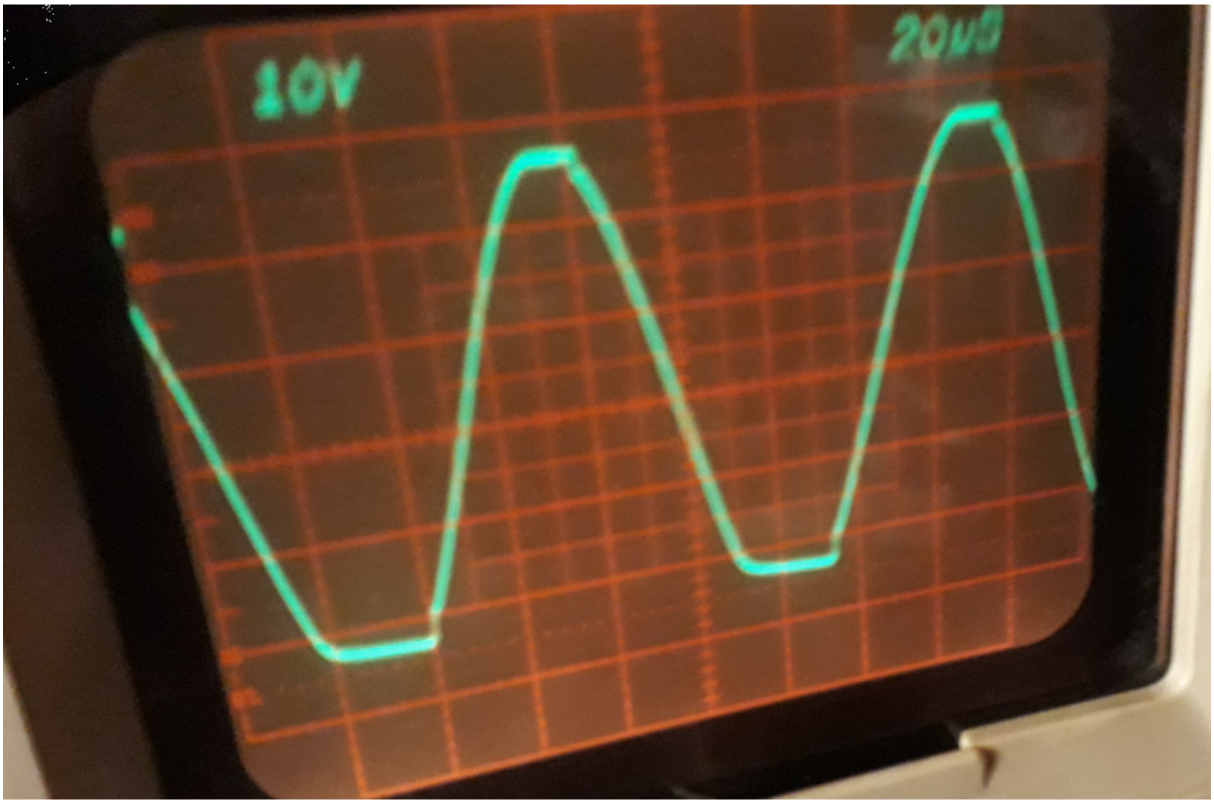
Sine 1KHz RL=8 Ohm



Sine 1KHz RL=4 Ohm (asymmetric clipping) x



Sine 10KHz RL=8 Ohm



Sine 10KHz RL=4 Ohm