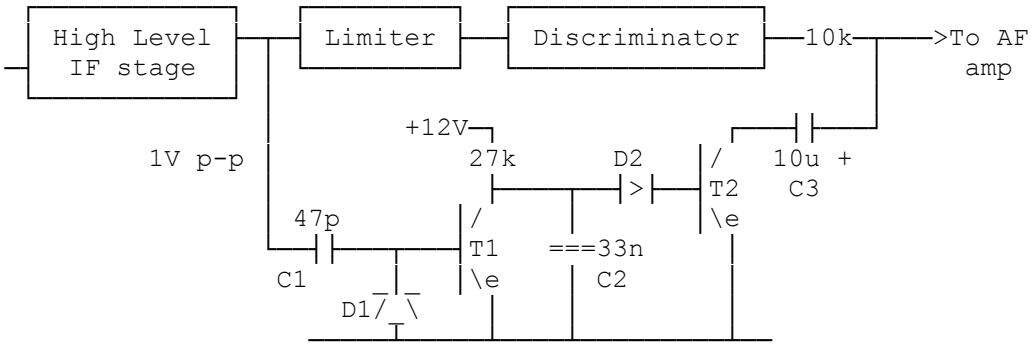
# Simple carrier squelch

By G8MNY (New Dec 06)

(8 Bit ASCII Graphics use code page 437 or 850)

Wanting to add a squelch to a FM deviation meter, I came up with this 2 transistor circuit. I did not want the normal noise squelch system as that is delayed & I do not want to see the large peak noise on the peak reading meter.




It works on a 600KHz IF in my application, so I expect the circuit will work on most 455KHz IF systems without too much of a tweak. With a scope I first checked there was a pre limiter stage with enough IF level to drive a transistor stage into class C, if there was not I would have added another IF amp to raise the level, as it happed I was lucky large signals to work with.

HOW IT WORKS

With no signal T1 will be off & T2 will be turned on by the 27k through D2. Note T2 is used as a PURE ON OFF RESISTIVE ATTENUATOR with no DC present through C3 on to its collector. T2 ON can short out small amounts of +/- AF current in this mode.

When there is enough IF signal present D1 & T1 base clip the signal & T1 conducts at the IF frequency. C2 discharges quickly & T2 will turn off when C2 is below 1V some IF ripple/noise can occur across C2, but D2 ensures this has to be big to activate T2.

There is no Squelch pot in this circuit, I selected a small value of C1 to not load the IF stage & give the wanted squelch sensitivity. A pot could be used there as well if there is enough signal.

Why don't U send an interesting bul?

73 de John G8MNY @ GB7CIP