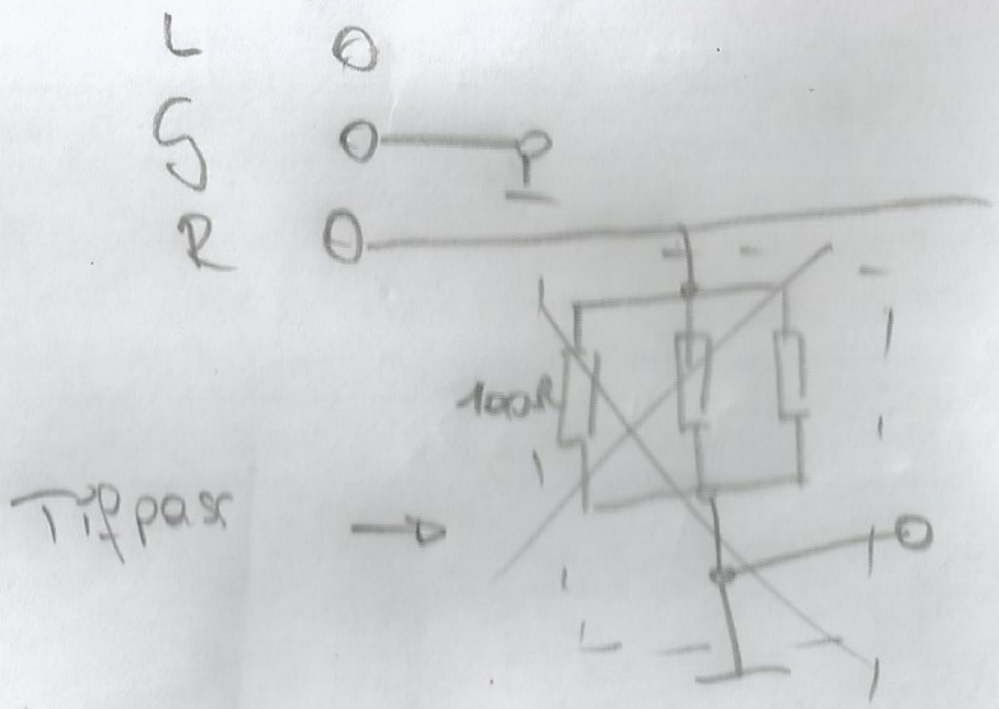
20 Hz - 20 kHz



→ transistor schaltung

euler = $e^{2\pi i f t}$ // counter clockwise

rotating vector

fourier

-euler

$= -e^{-2\pi i f t} \cdot g(t)$

→ $\frac{1}{N} \sum^{N} g(t_n) e^{-2\pi i f}$ N number of samples

$\frac{1}{t_2 - t_1} \int_{t_1}^{t_2} g(t) e^{-2\pi i f t} dt$ → centre of mass

A

time interval

without

$= \overline{FT}$

$FT = \int g(t) e^{-2\pi i f t} dt$