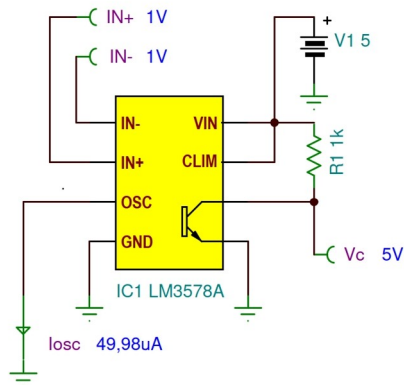
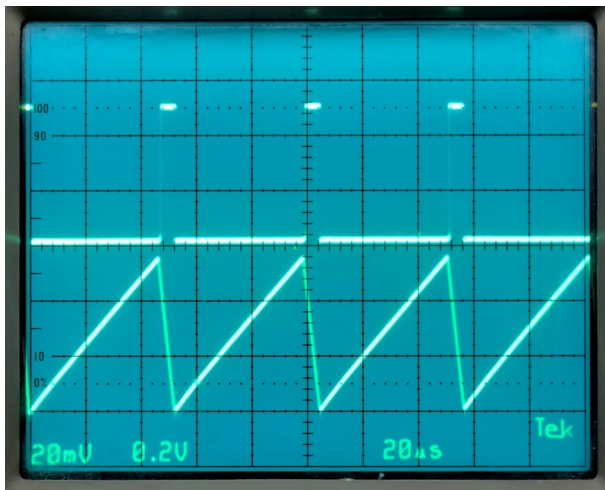
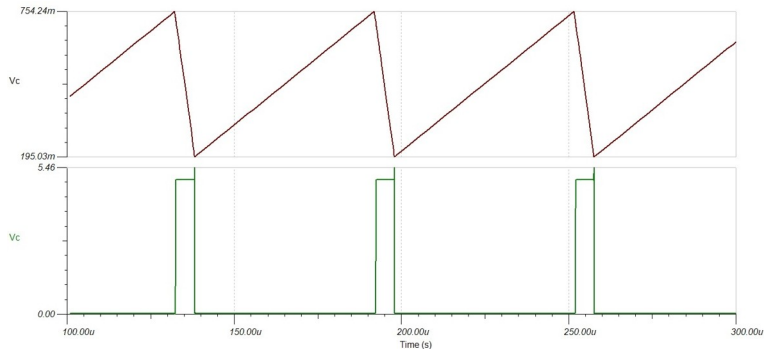
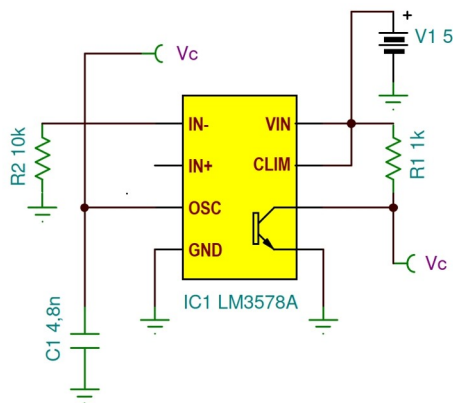


LM3578A Switching Regulator Macro Model

DC Test Circuit



AC Test Circuit



Real device AC test.

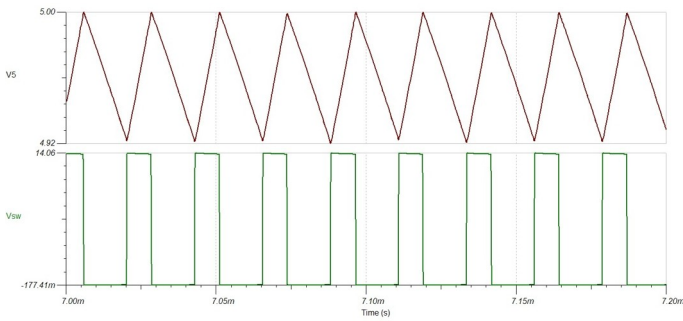
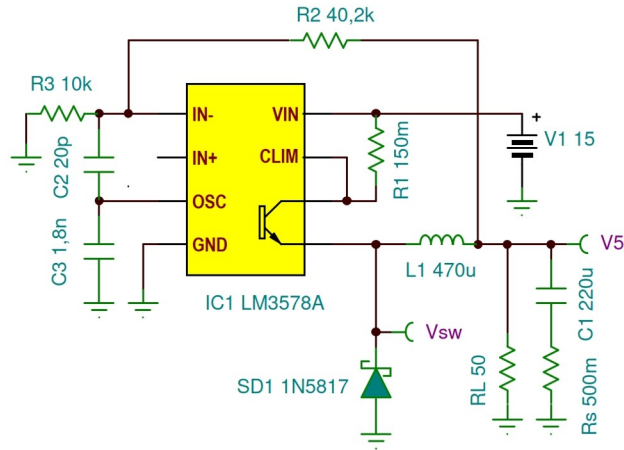
Typical values are 50 μA for the charge current, 450 μA for the discharge current, and a voltage swing from 200 mV to 750 mV.

The LM1578A provides an on-board oscillator which can be adjusted up to 100 kHz. Its frequency is set by a single external capacitor.

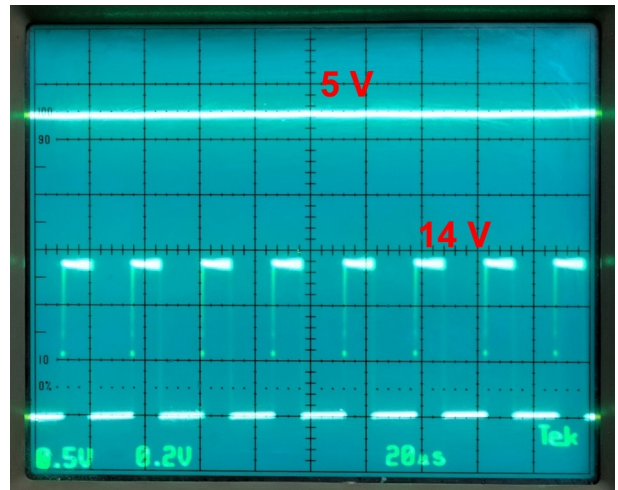
Buck or Step-Down Regulator

$V_{in} = 15 \text{ V}$

$V_o = 5 \text{ V}$



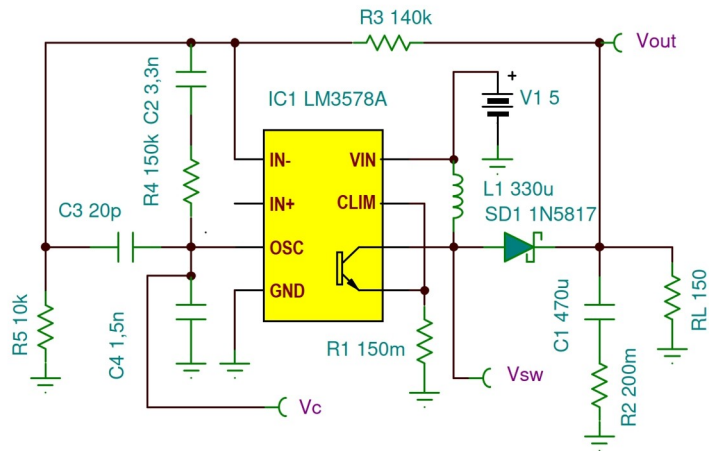
Model

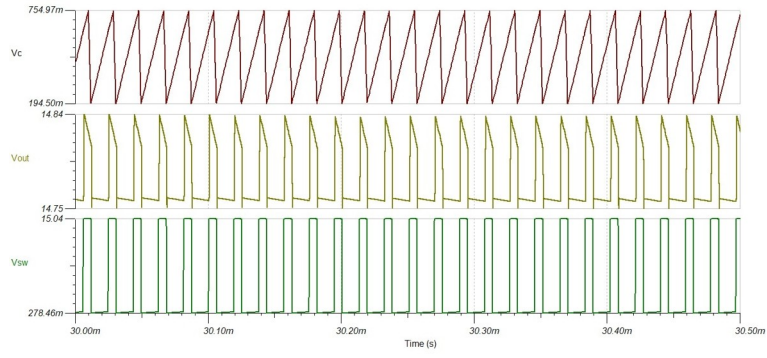


Real device

Boost or Step-Up Regulator

$V_{in} = 5\text{ V}$
 $V_o = 15\text{ V}$





Inverting Regulator

$V_{in} = 5\text{ V}$
 $V_o = -5\text{ V}$

