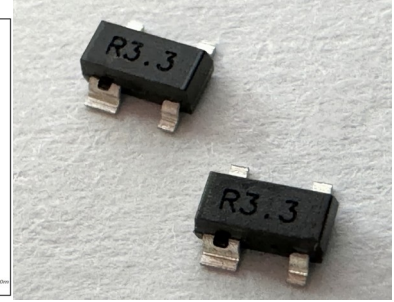
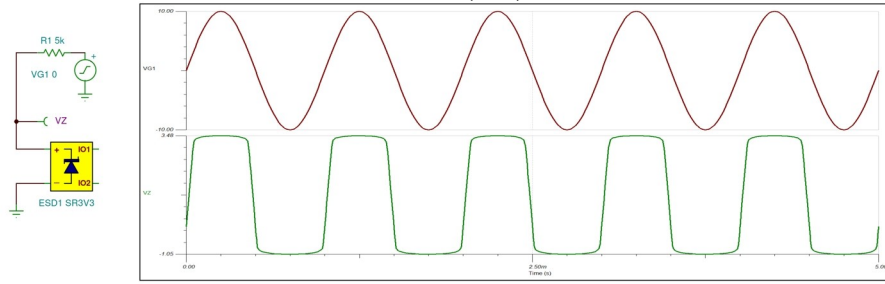
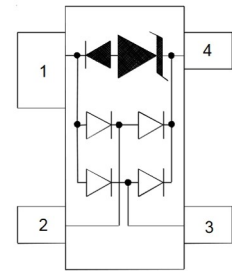
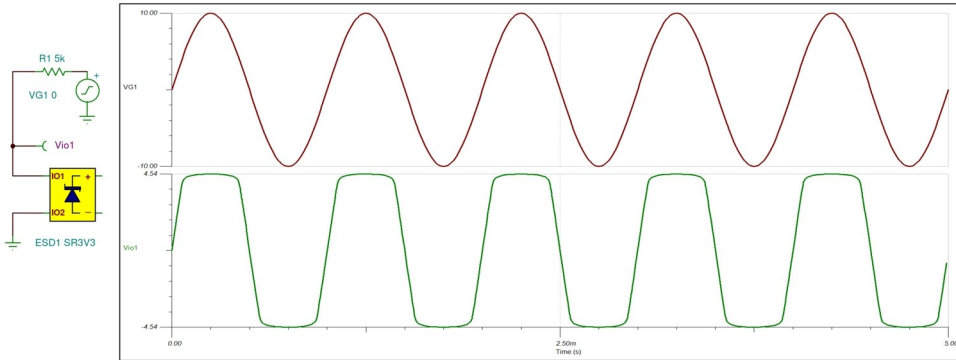


SR3.3 Low Capacitance TVS Diode Array Spice Model

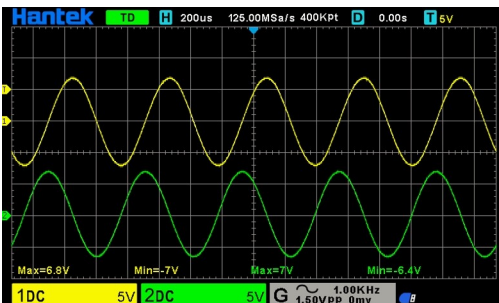
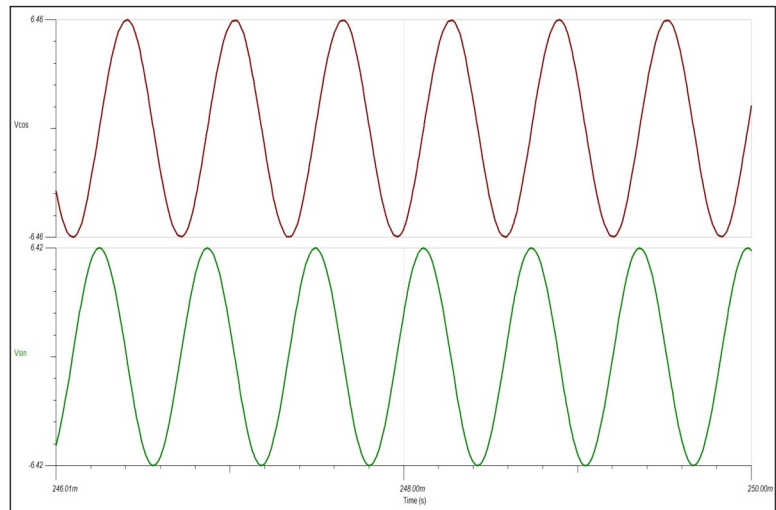
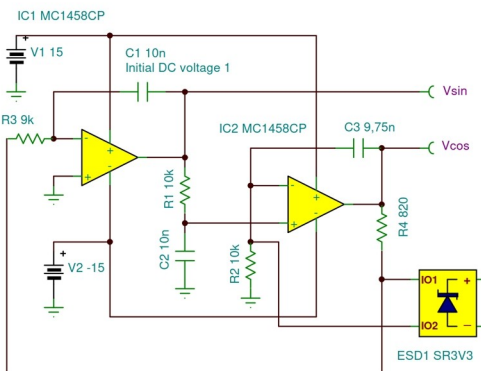
EPD TVS™ Diode Characteristics (1-4)



Line To Line Clamping Voltage (2-3)



Quadrature oscillator:



Oscillation occurs at $\omega = 2\pi f = 1/RC$. The test circuit oscillated at 1.62 kHz rather than the calculated 1.59 kHz, and the discrepancy is attributed to component variations. C3 is set to 10nF. It was only changed for stable oscillation in the simulation.

The distortion of the oscillator is reduced by a fully symmetrical limiting, so it is preferable to use such a device instead of unequal voltage Zener diodes. The higher voltage (cheaper) TVS diodes cannot be used to stabilize the oscillator because their clamping voltage is too high. For example, the nominal 5 V type has a clamping voltage of around 8 V, which is unusable at the given oscillator supply voltage.