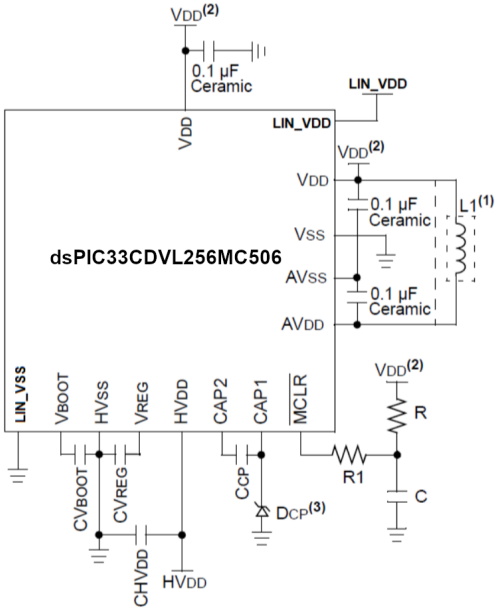

Note 1: As an option, instead of a hard-wired connection, an inductor (L1) can be substituted between VDD and AVDD to improve ADC noise rejection. The inductor impedance should be less than 1Ω and the inductor capacity greater than 10 mA.

2: VDD/AVDD pins may be powered by either an external power supply or by the 3.3V VREG output.

3: A Schottky diode between the CAP1 pin and HVSS is recommended to ensure that the CAP1 pin absolute minimum voltage specification of -0.3V is maintained.

Where:

$$f = \frac{F_{CNV}}{2}$$ (i.e., ADC conversion rate/2)

$$f = \frac{1}{(2\pi\sqrt{LC})}$$

$$L = \left(\frac{1}{(2\pi f\sqrt{C})}\right)^2$$