

$$p := 10^{-12}$$

$$n := 10^{-9}$$

$$u := 10^{-6}$$

$$m := 10^{-3}$$

$$k := 10^3$$

$$M := 10^6$$

$$V_{IN} := 22.2$$

$$V_{OUT} := 3.3$$

$$I_{OUT} := 1$$

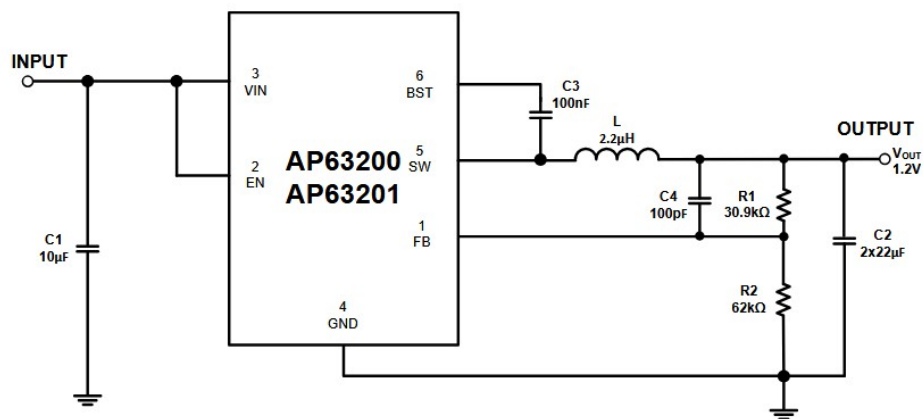


Figure 20. Typical Application Circuit of AP63200/AP63201

$$R_1 = R_2 \cdot \left(\frac{V_{OUT}}{0.8V} - 1 \right)$$

$$R_2 := 18 \text{ k}$$

$$R_1 := R_2 \cdot \left(\frac{V_{OUT}}{0.8} - 1 \right) = 56.25 \text{ k}$$

$$R_1 := 56 \text{ k}$$

$$R_2 := 18 \text{ k}$$

$$V_{OUT} := 0.8 \cdot \left(\frac{R_1}{R_2} + 1 \right) = 3.289$$

$$L = \frac{V_{OUT} \cdot (V_{IN} - V_{OUT})}{V_{IN} \cdot \Delta I_L \cdot f_{sw}}$$

$$f_{sw} := 500 \text{ k}$$

$$\Delta I_L := 0.4 \cdot 2$$

$$L := \frac{V_{OUT} \cdot (V_{IN} - V_{OUT})}{V_{IN} \cdot \Delta I_L \cdot f_{sw}} = 7.004 \text{ u}$$

$$I_{L_{PEAK}} = I_{LOAD} + \frac{\Delta I_L}{2}$$

$$I_{L_{PEAK}} := I_{OUT} + \frac{\Delta I_L}{2} = 1.4$$