$k := 1000$ $\quad m := \frac{1}{k}$

Things you need to know before you calculate inductance and sense resistor value

$Vout := 9$ Desired Output Voltage

$Vd := 0.7$ Output Rectifier Diode Drop

$Vi := 5$ Input Voltage

$fsw := 200k$ Desired Max Switching Frequency at full load

$io := 10.5m$ Desired Max Output Current

$n := 0.43$ Estimated Efficiency

$vbe := 0.65$ ON voltage of current sensing BJT

$vbefb := 0.57$ ON voltage of feedback BJT

Now some intermediate values:

$$rfb := \frac{(Vout - vbefb)}{\left(\frac{vbefb}{620}\right)} = 9.169 \times 10^{3}$$

$$ifb := \frac{Vout}{rfb}$$ Current from feedback network

$P := Vout \cdot (ifb + io) = 0.103$ Total Output Power

$$T := \frac{1}{fsw} = 5 \times 10^{-6}$$ Switching Period

$Vo := Vout + Vd$ Output + Diode Drop

Now determine the inductor value needed to support this:

$$L := Vo^{2} \cdot \frac{\left[\frac{T}{\left[1 + \frac{Vo}{\left(n^{2} \cdot Vi\right)}\right]}\right]}{2 \cdot P} = 1.981 \times 10^{-4}$$

Next the sense Resistor

$$Rsns := L \cdot \frac{vbe}{\left[Vi \cdot T - Vi \cdot \left[\frac{T}{1 + \frac{Vo}{\left(n^{2} \cdot Vi\right)}}\right]\right]} = 5.641$$