

UCC28064 Calculation for RTSET

$$V_{inmin} := 85V$$

$$ton_max := \frac{300W \cdot 340\mu H}{0.92 \cdot (85V)^2} = 1.535 \times 10^{-5} s$$

$$KTH_min := \frac{0.36\mu s}{V}$$

$$KTL_min := \frac{3.2\mu s}{V}$$

$$Rth1 := \frac{KTH_min(5V)^2 \cdot 133 \cdot 10^3 \text{ ohm} \cdot 4.825V}{\left(\frac{\sqrt{2} \cdot V_{inmin}}{65.74}\right)^2 \cdot ton_max} = 1.126 \times 10^5 \Omega$$

$$Rth2 := \frac{KTL_min(5V)^2 \cdot 133 \cdot 10^3 \text{ ohm} \cdot 4.825V}{\left(\frac{\sqrt{2} \cdot V_{inmin}}{65.74}\right)^2 \cdot ton_max} = 1.001 \times 10^6 \Omega$$