Table 1: Input Parameters given in the question

Symbol	Value	Description
L	$200\mu H$	Inductance of the circuit
f_{min}	800 kHz	Minimum operating frequency
f_{max}	1200 kHz	Maximum operating frequency
C_1	$\frac{1}{(2\pi \times 800 \times 10^3)^2 \times 200 \times 10^{-6}} \approx 198.1\,\text{pF}$	Maximum capacitance value
C_2	$\frac{1}{(2\pi \times 1200 \times 10^3)^2 \times 200 \times 10^{-6}} \approx 88.04\,\text{pF}$	Minimum capacitance value