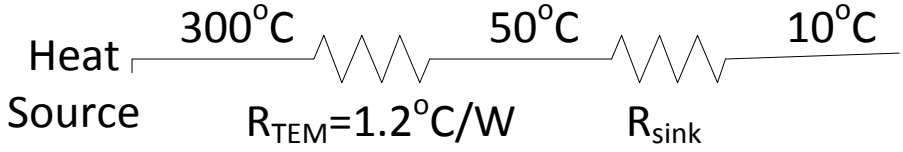
Regular Thermoelectric Setup

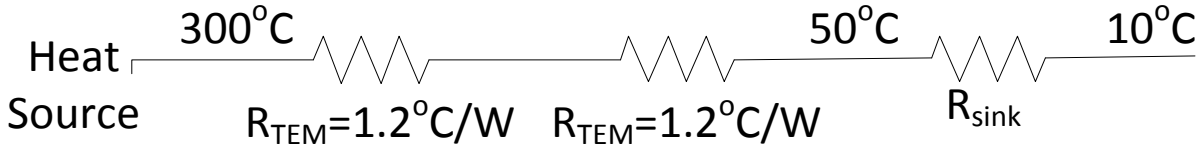


Solving for R_{sink},

$$q = \frac{\Delta T}{R_{TEM}} = \frac{250℃}{\frac{1.2℃}{W}} = 208.33W$$

$$R_{sink} = \frac{\Delta T}{q} = \frac{40℃}{208.33W} = 0.192\frac{℃}{W} \rightarrow this\ is\ extremely\ small$$

Stacked Thermoelectrics



Solving for R_{sink},

$$q = \frac{\Delta T}{R_{TEM}} = \frac{250℃}{\frac{2.4℃}{W}} = 104.2W$$

$$R_{sink} = \frac{\Delta T}{q} = \frac{40℃}{104.2W} = 0.394\frac{℃}{W} \rightarrow this\ is\ still\ very\ small$$