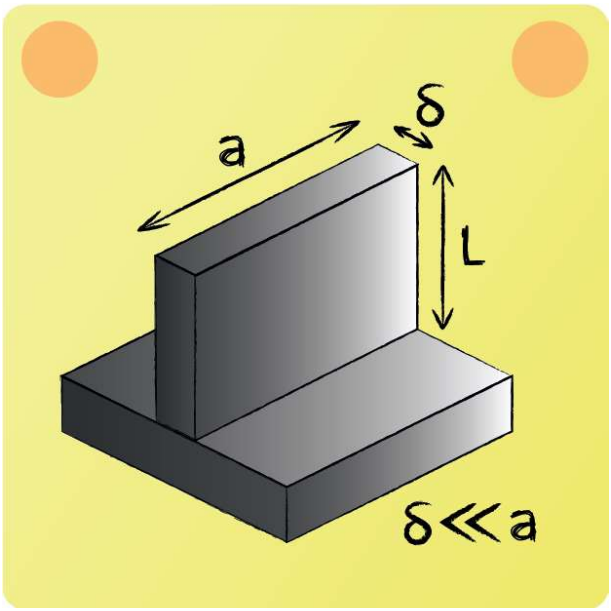
Conduction Fins 04



Determine the fin parameter m for the shown fin geometry.

$$m^2 = \frac{\alpha \cdot U}{\lambda \cdot A_c} = \frac{\alpha \cdot 2 \cdot (\delta + a)}{\lambda \cdot \delta \cdot a} = \frac{2 \cdot \alpha}{\lambda} \cdot \left(\frac{1}{\delta} + \frac{1}{a} \right)$$

Where:

$$\frac{1}{\delta} >> \frac{1}{a}$$

And thus:

$$m \approx \sqrt{\frac{2 \cdot \alpha}{\lambda \cdot \delta}}$$