

727-1791 IF I choose L to be 0.68 μm then $I_{\text{out}}(\text{crit})$ will yield:

$$I_{\text{out}}(\text{crit}) = \frac{1.8229 \times 10^{-6}}{0.68 \times 10^{-6}} = 2.6954 \text{ A}$$

748-6798 IF I choose L to be 0.47 μm then $I_{\text{out}}(\text{crit})$ will yield:

$$I_{\text{out}}(\text{crit}) = \frac{1.8329 \times 10^{-6}}{0.47 \times 10^{-6}} = 3.8998 \text{ A}$$

Choose L to be 0.68 μm according to the table on 88 and use a higher order to get $I_{\text{out}}(\text{crit})$ of 2.6954 A.

$$\begin{aligned} I_{\text{out}}(\text{crit}) &= \frac{5 \times (V_{\text{out}} - V_{\text{in}}) \times 5}{5 \times (V_{\text{out}} + V_{\text{in}}) \times 5} \\ &= \frac{5 \times (5.3 - 2.0 + 0.2) \times 5}{5 \times (5.3 + 2.0 + 0.2) \times 5} \\ &= \frac{5 \times 3.5 \times 5}{5 \times 7.5 \times 5} \\ &= \frac{17.5}{18.75} \\ &= 0.9333 \end{aligned}$$

IF I choose L to be 0.47 μm then $I_{\text{out}}(\text{crit})$ will yield:

$$I_{\text{out}}(\text{crit}) = \frac{1.8329 \times 10^{-6}}{0.47 \times 10^{-6}} = 3.8998 \text{ A}$$