# Photodiode as current source

## Student Group

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**Photo Diode as current source**

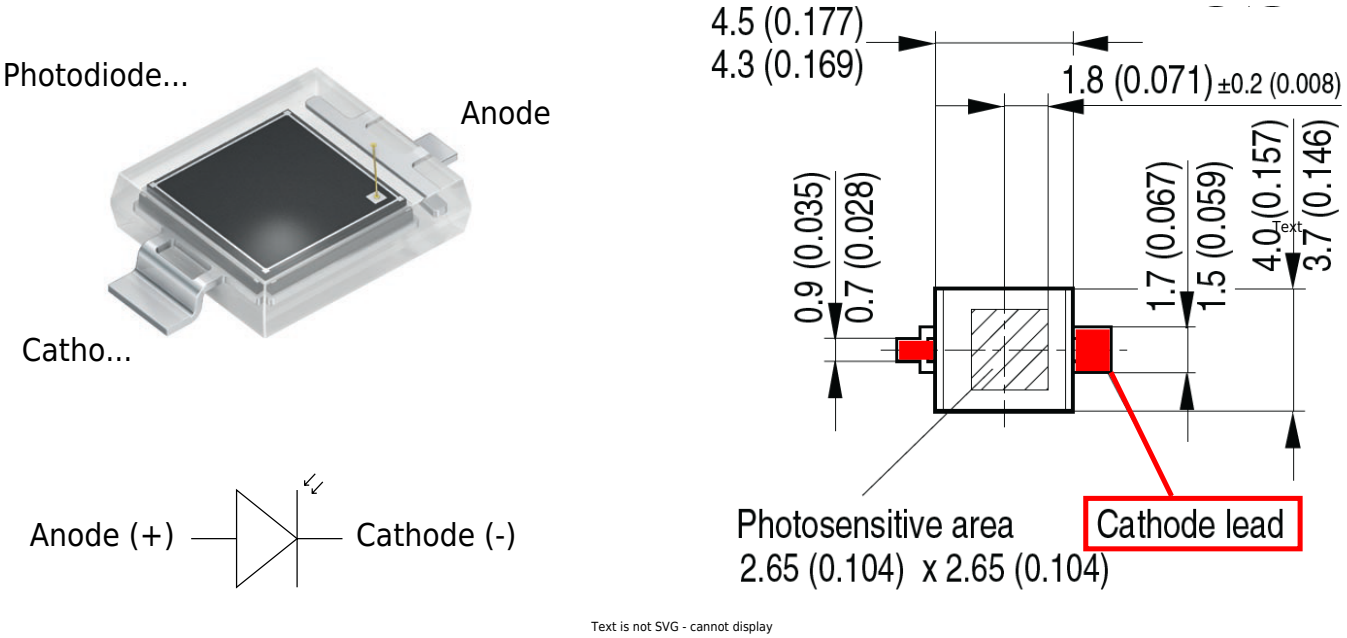


Fig. 1: Inverting Op-Amp: Photo Diode BPW 34 S

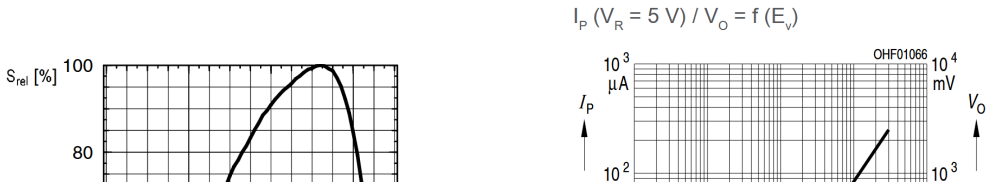


Fig. 2: Inverting Op-Amp: Diagramms of BPW 34 S from datasheet

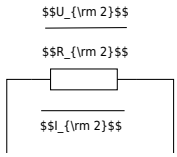


Fig. 3: Inverting Op-Amp: Photo Diode as current source

$U_{\rm DD}{\rm~=10~V},~U_{\rm SS}{\rm~=-10~V}$

Complete the arrows in the scematic of the circuit.
Take the values for $U_{\rm 1},~U_{\rm 2},~U_{\rm OUT}$ from figure ##.
Use these values to calculate the sum of the voltages at node ${\rm N_{12}}$.
Compare your result by measuerement.

$U_{\rm 1}{\rm~=}$

$U_{\rm 2}{\rm~=}$

$U_{\rm OUT}{\rm~=}$

Calculated $U_{\rm 12}{\rm~=}$

Measured $U_{\rm 12}{\rm~=}$

What are your results?

${\rm .....}$

${\rm .....}$

${\rm .....}$

What will happen if you short-circuit $R_{\rm 2}$?
Try it and explain your results.

${\rm .....}$

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