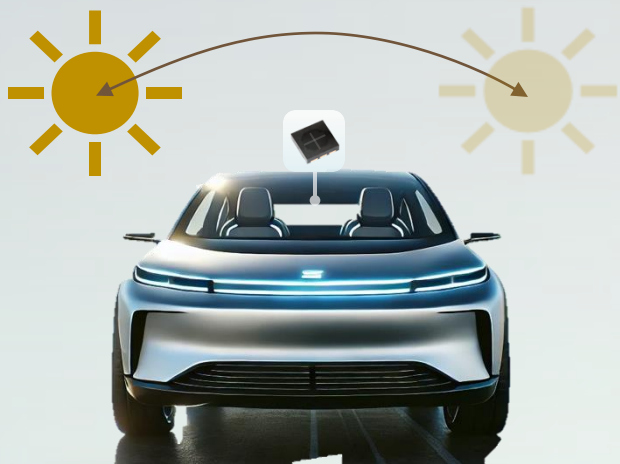


4-Quadrant Photodiode for Angular Positioning Sensing



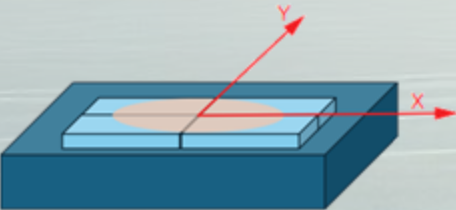
The DNA of tech.®



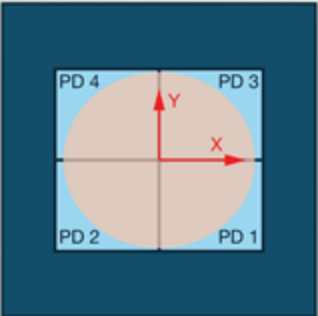
Overview:
The K857 4-quadrant photodetector offers precise position and angle sensing in a single SMD package. Unlike traditional photodiodes, it delivers separate signals from each quadrant for accurate real-time feedback — ideal for alignment, centering, and control applications.

Working Principle

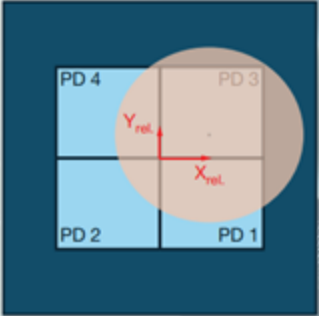
Each quadrant of the photodiode generates a photocurrent proportional to the area it receives light. By analyzing the ratios of these photocurrents, the exact position and angle of the light spot can be calculated.



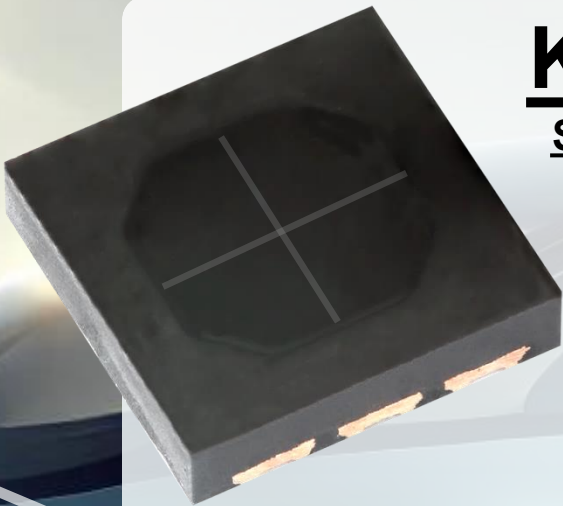
3D View



Centered Light Spot



Shifted Light Spot



K857
SERIES

4.72 mm x 4.72 mm x 0.75 mm

Reverse light current	8.5 μ A typical
Operating temperature	-40 °C to +110 °C
Bandwidth	$\lambda_{0.1}$ = 690 nm to 1050 nm
Low crosstalk	0.1 %



[White Paper](#)