

Product Information

SensorEyeC™ Light Sensors

MLX75303: Optical Switch SensorEyeC

MLX75305: Light-to-Voltage SensorEyeC

SensorEyeC devices are integrated light sensors with photodiode, transimpedance amplifier and output transistor in one chip to simplify application design, enhance quality and minimize use of external discretes.

The SensorEyeC series are perfect replacements for photodiodes, phototransistors and light dependant resistors (LDR).

Features & Benefits

Outperform

- MLX75303: Dirt robustness by light over-saturation up to 1000x
- MLX75305: Features high linearity +/- 2%

Easy-to-use

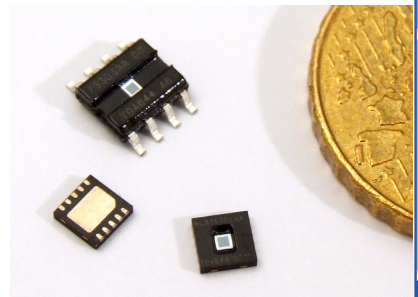
- Low temperature dependency
- High linear voltage or frequency output
- Small size package: DFN 3mm x 3mm x 0.65mm
- Supply voltage 3V..5.5V
- Solder reflow 260°C

Quality

- Low ppm defects
- Precise light responsivity
- RoHS compliant
- Automotive version: AEC-Q100 automotive qualified

Versions

- DFN3x3 or SO8 package
- Consumer grade or automotive grade -40..+125°C



Bus ICs

BLDC Motor
Control ICs

Pressure Sensors

Wireless ICs

Hall Effect ICs
And Sensors

Optoelectronic
Sensors

Sensor Interface ICs

Infrared Sensors

Application Examples

Copiers and printers

Detect paper feed, orientation and cartridge presence.

LCD backlight dimming

Save battery power and enhanced user experience for cell phones, GPS receivers, MP3 players, PCs. Also LED dimming.

Ambient light detection

Activate and de-activate lighting, sun blinds, roof windows. Closed loop LED light and color intensity control.

Hand Detection

Activate washing table water taps and hand dryers.

Automotive light control

Detect ambient light for rear-view mirror dimming, for instrument panel light control and for headlight control.

Benefits of SensorEyeC light sensors versus discrete photodiodes

Save PCB board space and cost

Use less discrete components.

Simplify design, ease high-volume production

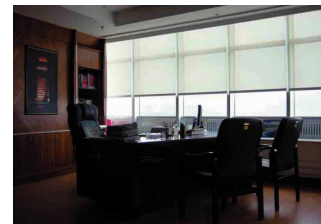
Low temperature dependency, high linearity, high precision of light responsivity, solder reflow 260°C.

Increase quality

Low ppm, lower noise and better EMC protection because the sensitive link between photodiode and amplifier is integrated on chip.

Additional benefits of automotive version

- Automotive qualification AEC-Q100
- Operating temperature up to +125°C
- High gain on-chip avoids external high resistor values



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