

## IC PROXIMITY SENSOR AMB LT 6ODFN

Manufacturers	<a href="#">Renesas Technology Corp</a>
Package/Case	DFN-6
Product Type	Sensors, Transducers
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for ISL29035IROZ-T7 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

RFQ

## General Description

The ISL29035 is an integrated ambient and infrared light-to-digital converter with I2C (SMBus compatible) Interface. Its advanced self-calibrated photodiode array emulates human eye response with excellent IR rejection. The on-chip ADC is capable of rejecting 50Hz and 60Hz flicker caused by artificial light sources. The Lux range select feature allows users to program the Lux range for optimized counts/Lux. For ambient light sensing, an internal 16-bit ADC has been designed based upon the charge-balancing technique. The ADC conversion time is nominally 105ms and is user adjustable from 11 $\mu$ s to 105ms, depending on oscillator frequency and ADC resolution. In normal operation, typical current consumption is 57 $\mu$ A. In order to further minimize power consumption, two power-down modes have been provided. If polling is chosen over continuous measurement of light, the auto power-down function shuts down the whole chip after each ADC conversion for the measurement. The other power-down mode is controlled by software via the I2C interface. The power consumption can be reduced to less than 0.3 $\mu$ A when powered down. The ISL29035 supports a software brownout condition detection. The device powers up with the brownout bit asserted until the host clears it through the I2C interface. The ISL29035 supports a software and hardware interrupt that remains asserted until the host clears it through the I2C interface. Function of ADC conversion continues without stopping after interrupt is asserted. Designed to operate on supplies from 2.25V to 3.63V with an I2C supply from 1.7V to 3.63V, the ISL29035 is specified for operation across the -40°C to +85°C ambient temperature range.

## Features

Resolution: 16-bit ADC

Wide dynamic range: 1:4,200,000

Integrated noise reduction: 50Hz/60Hz

Close to human eye response with excellent IR/UV rejection

Shutdown modes: software and automatic

Programmable interrupt threshold with persistence filter

Supply current (typical): 57 $\mu$ A

Shutdown current (maximum): 0.51 $\mu$ A

I<sup>2</sup>C (SMB compatible) power supply: 1.7V to 3.63V

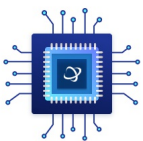
Sensor power supply: 2.25V to 3.63V

Operating temperature range: -40 °C to +85 °C

Small form factor package: 6 Ld 1.5mm x 1.6mm x 0.75mm ODFN

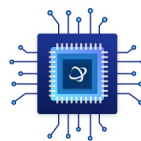


## Related Products



### [ISL29035IROZ-T7A](#)

Renesas Technology Corp  
6-COL



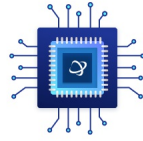
### [ZMID5201AE1R](#)

Renesas Technology Corp



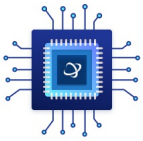
[FS2012-1100-NG](#)

Renesas Technology Corp



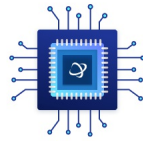
[FS2012-1020-NG](#)

Renesas Technology Corp



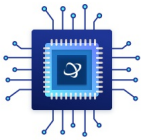
[FS1012-1100-NG](#)

Renesas Technology Corp



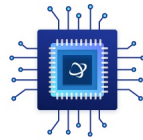
[HS3003](#)

Renesas Technology Corp



[ZMOD4410AI3V](#)

Renesas Technology Corp



[ZMOD4410AI1V](#)

Renesas Technology Corp