



**TAOS Inc.**

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The technical content of this TAOS datasheet is still valid.

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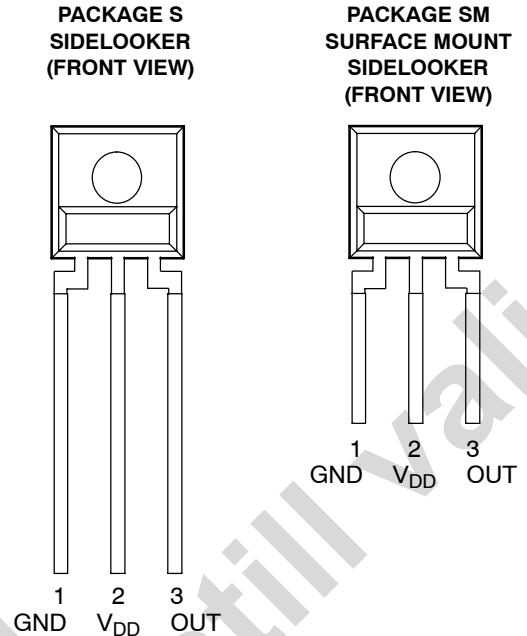
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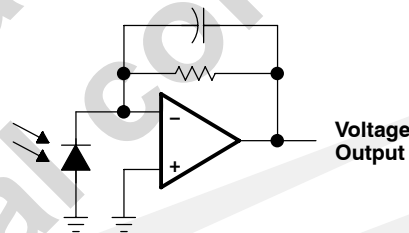
- **Integral Visible Light Cutoff Filter**
- **Monolithic Silicon IC Containing Photodiode, Operational Amplifier, and Feedback Components**
- **Converts Light Intensity to a Voltage**
- **High Irradiance Responsivity, Typically 111 mV/( $\mu$ W/cm<sup>2</sup>) at  $\lambda_p = 940$  nm (TSL260R)**
- **Compact 3-Lead Plastic Package**
- **Single Voltage Supply Operation**
- **Low Dark (Offset) Voltage....10mV Max**
- **Low Supply Current.....1.1 mA Typical**
- **Wide Supply-Voltage Range.... 2.7 V to 5.5 V**
- **Replacements for TSL260, TSL261, and TSL262**
- **RoHS Compliant (-LF Package Only)**



## Description

The TSL260R, TSL261R, and TSL262R are infrared light-to-voltage optical sensors, each combining a photodiode and a transimpedance amplifier (feedback resistor = 16 M $\Omega$ , 8 M $\Omega$ , and 2.8 M $\Omega$  respectively) on a single monolithic IC. Output voltage is directly proportional to the light intensity (irradiance) on the photodiode. These devices have improved amplifier offset-voltage stability and low power consumption and are supplied in a 3-lead plastic sidelooker package with an integral visible light cutoff filter and lens. When supplied in the lead (Pb) free package, the device is RoHS compliant.

## Functional Block Diagram



## Available Options

DEVICE	T <sub>A</sub>	PACKAGE - LEADS	PACKAGE DESIGNATOR	ORDERING NUMBER
TSL260R	0°C to 70°C	3-lead Sidelooker	S	TSL260R
TSL260R	0°C to 70°C	3-lead Sidelooker — Lead (Pb) Free	S	TSL260R-LF
TSL260R	0°C to 70°C	3-lead Surface-Mount Sidelooker — Lead (Pb) Free	SM	TSL260RSM-LF
TSL261R	0°C to 70°C	3-lead Sidelooker	S	TSL261R
TSL261R	0°C to 70°C	3-lead Sidelooker — Lead (Pb) Free	S	TSL261R-LF
TSL261R	0°C to 70°C	3-lead Surface-Mount Sidelooker — Lead (Pb) Free	SM	TSL261RSM-LF
TSL262R	0°C to 70°C	3-lead Sidelooker	S	TSL262R
TSL262R	0°C to 70°C	3-lead Sidelooker — Lead (Pb) Free	S	TSL262R-LF
TSL262R	0°C to 70°C	3-lead Surface-Mount Sidelooker — Lead (Pb) Free	SM	TSL262RSM-LF