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SHENZHEN CGX OPTOELECTRONIC TECHNOLOGY, INC..

样品规格承认书

SAMPLE APPROVAL SHEET

客户名称

Company Name : _____

产品型号

Part Number: PDIC-5PLA5-U020-B3

送样日期

Sample Date: _____

APPROVED	SIGNATURES. / O 1 2 3 4	
核准	56	工程

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核准	工程	56

Add : 深圳市 DE ? F G H I J K L G M & N B O

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Visible Light Detector

PATR NO. : PDIC-5PLA5-U020-B3

FEATURES

- Near human eye photopic response
- High IR rejection without external optical filter
- Photo-Current amplifier integrated
- Excellent dark current performance over wide temperature range, especially over high temp
- High output current linearity to ambient light level
- Buffered analog output intergrates seamlessly with external MCU
- Higher humidity immunity

Package Dimensions

DESCRIPTION

PDIC-5PLA5** is a cost effective visible light sensor series without external optical filter to provide close to human eye response and high IR rejection.

It converts light into voltage by connecting it with a series resistor. The dynamic range is determined by the power supply and the external resistor (5V supply with 10K ohm resistor gives a range of up to 160 Lux, and can be over 700 Lux with a 1K ohm resistor). The internal dark current cancellation circuits enable a stable and accurate performance even up to 125°C.

The digital output version provides a good BOM cost reduction and enables board miniaturization for system maker.

Vss

Vdd

Notes :

1. All dimensions are in millimeters
2. Protruded resin under flange is 0.5 mm max.
3. Tolerance is ± 0.25 mm unless otherwise noted.

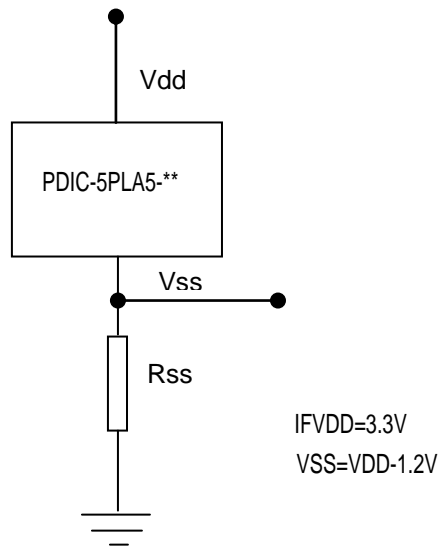
APPLICATIONS

- Dawn/dusk sensing
- Security lighting
- Light sensing
- Automotive car headlight
- Automatic Night Light

Visible Light Detector

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BASIC APPLICATION



ABSOLUTE MAXIMUM RATINGS

PARAMETER	RATING	UNITS
Supply input voltage	-0.3 to 12	V
Supply current	Internally limited	mA
Operating Temperature, T_O	-40°C to +85°C	°C
Storage Temperature, T_S	-40°C to +100°C	°C

ELECTRICAL SPECIFICATION

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Operating voltage	V_{DD}			5	12	V
Output Current	I_{SS}	light @ yellow led 590nm $V_r=5v$	3.5	5.0	7.0	μA
Dark Current	I_{DRK}	0 Lux, $T_a = 25^\circ C$ 0 Lux, $T_a = 85^\circ C$		5 10	20 50	nA nA
Peak Spectral Response	Wavelength			550		nm

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Photo-spectral response and IR rejection

Dark current is only 360nA @ 125C

Output current: