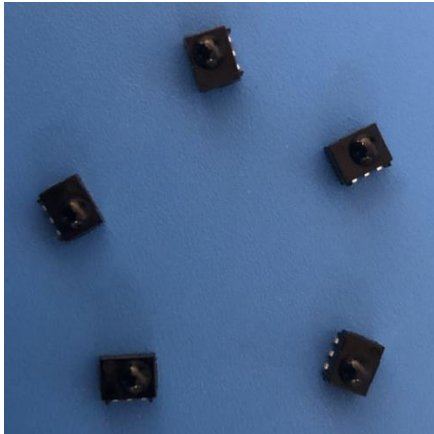


Light Detectors for Infrared Communication

OSC1811FL



Description

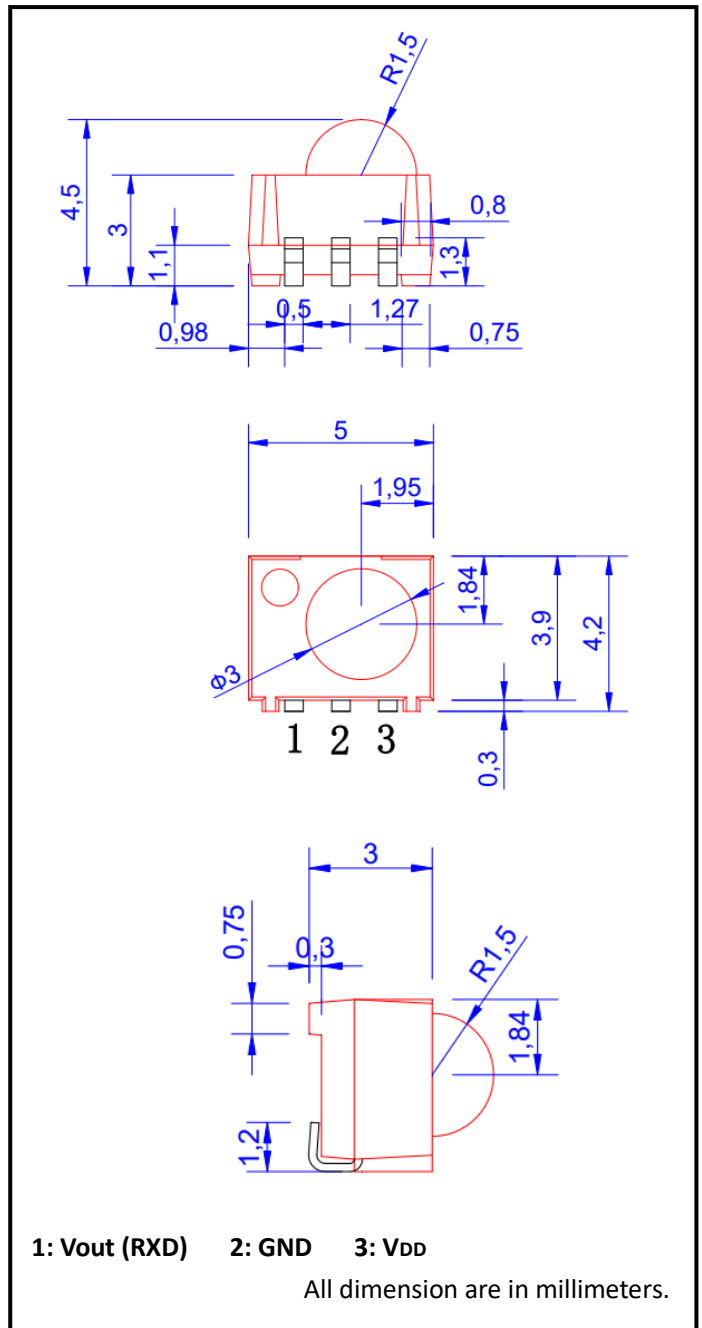
The OSC1811FL is monolithic integrated circuits incorporating A photodiode, linear preamplifier, driver in a single chip. It is a light detector for high speed infrared communication, Visible light cut off package.

Features

- * Light detector of infrared
- * Operation voltage: 2.7V to 5.0V.
- * Low cost

Applications

- * Automatic door
- * Light curtain
- * Safekeeping switch equipment

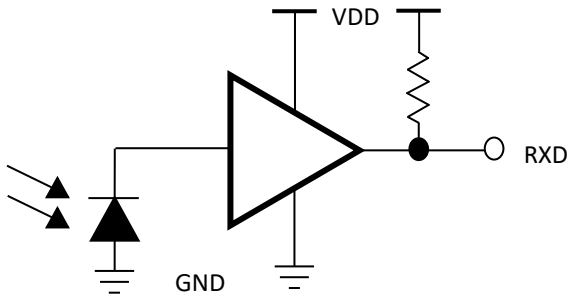


Absolute Maximum Ratings (Ta=25 °C)

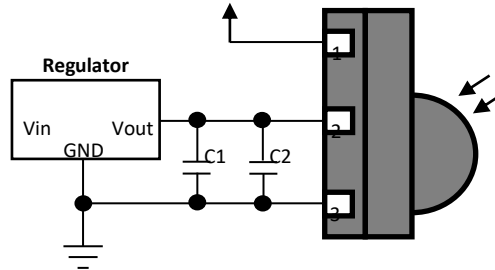


Parameter	Symbol	Min.	Typ.	Max.	Unit
Power supply Voltage	VDD	0		7	V
Continuous power dissipation			200		mW
Operating Temperature	Topr	-25		+85	°C
Storage Temperature	Tstg	-40		+100	°C

Block Diagram & Application Circuit:



Integrated 500KΩ pull-up Resistor



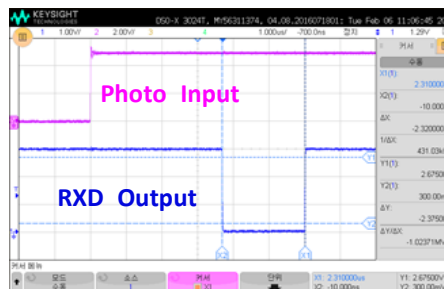
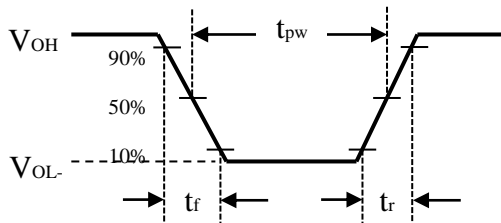
Recommended Application Capacitor

C1= 4.7uF Tantalum , C2= 0.1uF Ceramic

Pin assignment	Symbol	Type	Function
1	RXD	Output, Active Low	This output indicated received serial data. It is a push-pull CMOS driver capable of driving a standard CMOS/TTL load
2	VDD	Power	Supply voltage
3	GND	Ground	Power ground

Typical Characteristics:

RXD output waveform



Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject change without notice

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Electrical and Optical characteristics (Ta=25°C)

Parameter	Symbol	Condition	Index			Unit
			Min.	Typ.	Max.	
Operation Supply Voltage	V _{DD}	-	2.7		5.0	V
Dissipation current	I _{DD}	V _{DD} =3.6V	-	200	4	uA
High level output voltage	V _{OH}	I _{OH} =200uA	2/3V _{DD}	-	V _{DD}	V
Low level output voltage	V _{OL}	I _{OL} =200uA	0	-	1/3V _{DD}	V
Rise/Fall time	Tr/Tf	C _{load} =0pF	-	15	20	nS
Min. detection threshold Irradiance	Elmin	-	40	-		uW/cm ²
Spectral response sensitivity	λ	-	700	-	1100	nm
Peak wavelength	λ _p	-		850		nm
Half angle	∠θ			±45		deg
Output pulse width	Tpw	C _{load} =10pF	2.0	2.45	3.0	uS

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