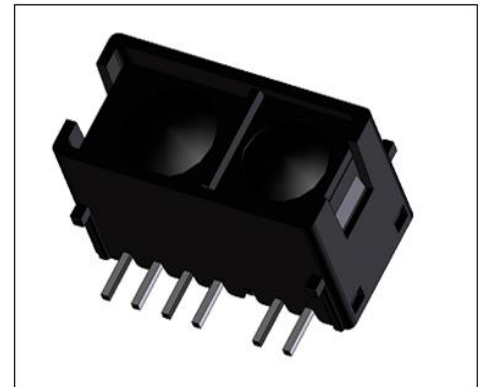


Description

This sensor is a near distance measure photo interrupter. It is combines high-output GaAs IRED and high sensitive LTV(light to voltage) with amplifier.



Features

- IRED operate pulse signal.
- Calculated Distance.
- Low tolerance with color.
- RoHS Compliance.

Applications

- Cleaner robot.
- Short distance measure.
- Home appliance.
- Hand drier.

Absolute Maximum Ratings (T_a=25°C, Unless otherwise noted)

Characteristic		Symbol	Ratings	Unit
Input	Reverse Voltage	VR	5	V
	Forward Current	IF	50	mA
	Peak Forward Current	IFP	0.5	A
	Power Dissipation	PD	90	mW
Output	Supply Voltage	VCEO	0~12	V
Operating Temperature		Topr.	-25 ~ 85	°C
Storage Temperature		Tstg.	-40 ~ 85	°C

Note: ※1.Duty ratio = 1/100, pules width = 0.1ms

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Electrical Characteristics (T_a=25°C)

Characteristic		Symbol	Min	Typ	Max	Unit	Condition
Input	Forward voltage	V _F	-	1.45	-	V	I _F = 50mA
	Reverse Current	I _R	-	-	70	μA	V _R = 5V
	Peak wavelength	λ _P	-	875	-	nm	-
Output	Dark Voltage	CH A	-	-	22	mV	V _{CC} = 3.3V, 0Lux
		CH B	-	-	17	mV	V _{CC} = 3.3V, 0Lux
Transmission	Detecting Distance	L _{DS}	20	-	100	mm	V _{CC} = 3.3V
	Output Voltage	CH A	-	0.55	-	V	V _{CC} = 3.3, V _{FVP} = 500Hz, L = 50mm
		CH B	-	0.65	-	V	
	Leakage Voltage	V _{Leak}	-	-	50	mV	
Response Time	Rise Time	t _r	-	250	-	μs	Fig.1 Fig.2
	Fall Time	t _f	-	350	-	μs	

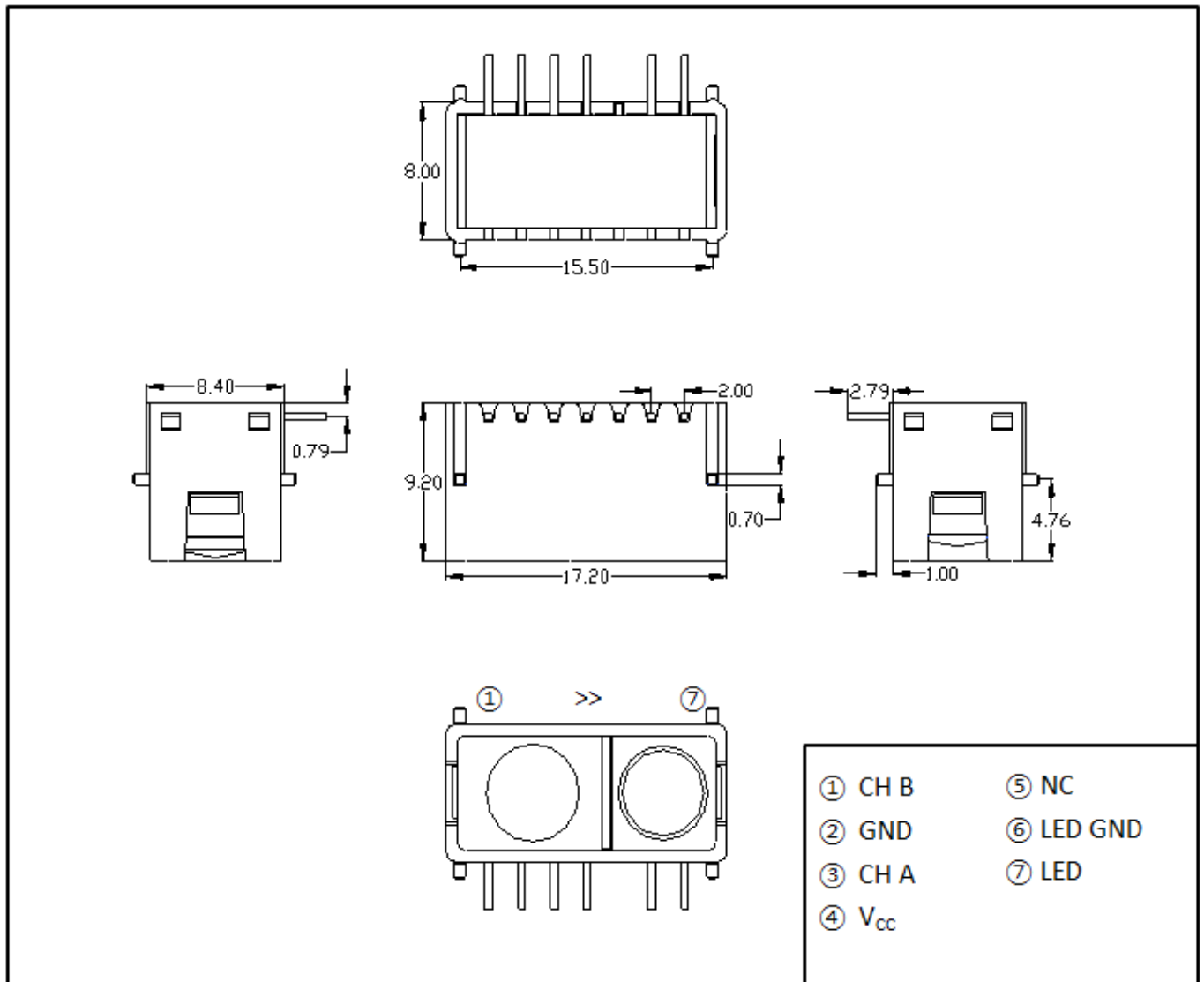
Note1. Reference media: KODAK 90% White paper

Note2. Input VFP have a 500Hz frequency with 40% duty and media position is 100mm from top surface of sensor. Apply with recommendation circuit

Note3. Adjust amplitude and offset of square wave so that Vout transitions from 10% to 90% of Vout range of the Device Under Test(DUT)

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Package Outline Dimensions



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