

MODEL 產品型號：XL-2838L

Description

The XL-2838L is miniaturized infrared receivers for remote control and other applications requiring improved ambient light rejection.

The separate PIN diode and preamplifier IC are assembled on a single leadframe.

The epoxy package contains a special IR filter.

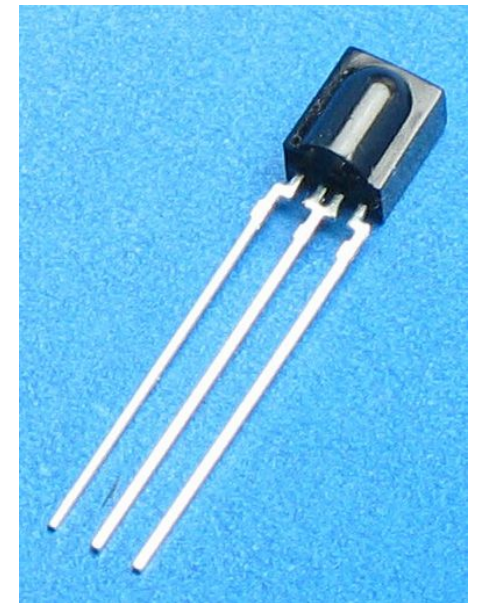
This module has excellent performance even in disturbed ambient light applications and provides protection against uncontrolled output pulses.

Features

Photo detector and preamplifier in one package .

Internal filter for PCM frequency.

Inner shield, good anti-interference ability.



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High immunity against ambient light.

Improved shielding against electric field disturbance

3.0V OR 5.0V supply voltage; low power consumption.

TTL and CMOS compatibility.

8ms data pause time codes are acceptable

Applications:

Optical switch

Light detecting protion of remote contol

AV instruments such as Audio, TV, VCR, CD, MD, DVD, etc.

Home appliances such as Air-conditioner, Fan, etc.

CATV set top boxes

Multi-media Equipment

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Absolute Maximum Ratings at Ta=25℃

Parameter	Symbol	Ratings	Unit	Notice
Supply Voltage	Vs	2.0-6.5	V	—
Operating Temperature	Topr	-20~+65	℃	—
Storage Temperature	Tstg	-40~+85	℃	—
Soldering Temperature	Tsd	260	℃	4mm from mold body less than 5 sec

MODEL 產品型號：XL-2838L**Electrical Optical Characteristics**

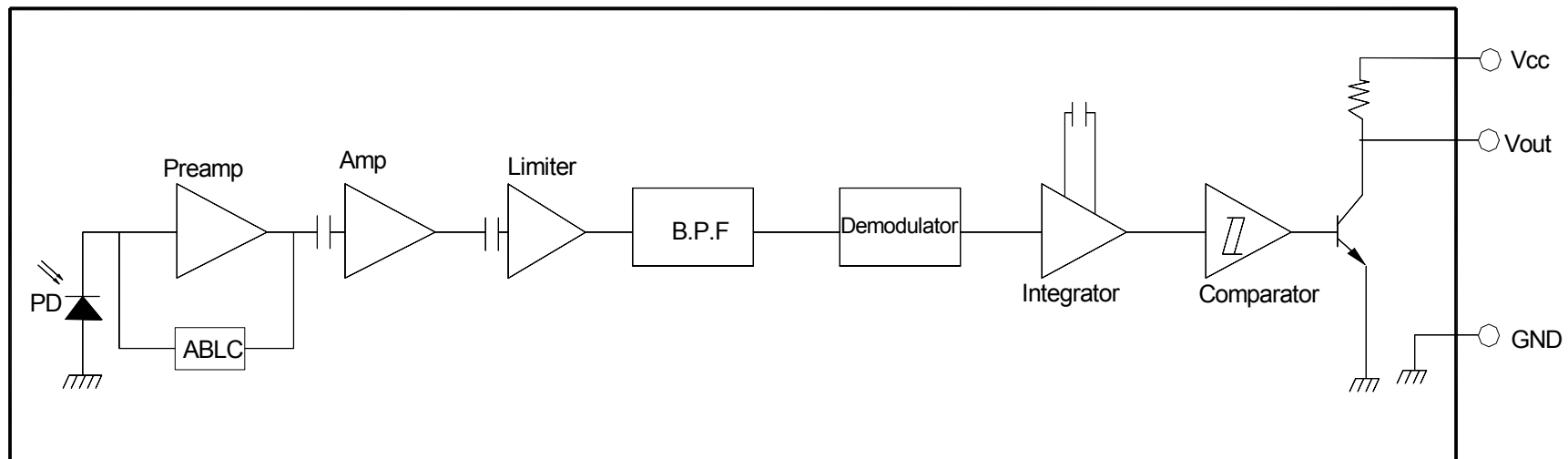
Parameter	Symbol	Ratings			Unit	Condition
		Min.	Typ.	Max.		
Supply Voltage	Vs	2.1		5.5	V	
Supply Current	Icc	—	—	2.0	mA	No signal input
Reception Distance	L0	12	—	—	m	At the ray axis*1
	L45	6	—	—		
B. P. F Center Frequency	fo	—	38	—	KHz	
Peak Wavelength	λ_p	—	940	—	nm	
Half Angle	θ	—	45	—	deg	At the ray axis *1
High Level Pulse Width	TH	400	—	800	μ S	At the ray axis *2
Low Level Pulse Width	TL	400	—	800	μ S	
High Level Output Voltage	VH	4.5	—	—	V	
Low Level Output Voltage	VL	—	—	0.5	V	

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*1:The ray receiving surface at a vertex and relation to the ray axis in the range of $\theta=0^\circ$ and $\theta=45^\circ$

*2:A range from 30cm to the arrival distance. Average value of 50 pulses

BLOCK DIAGRAM

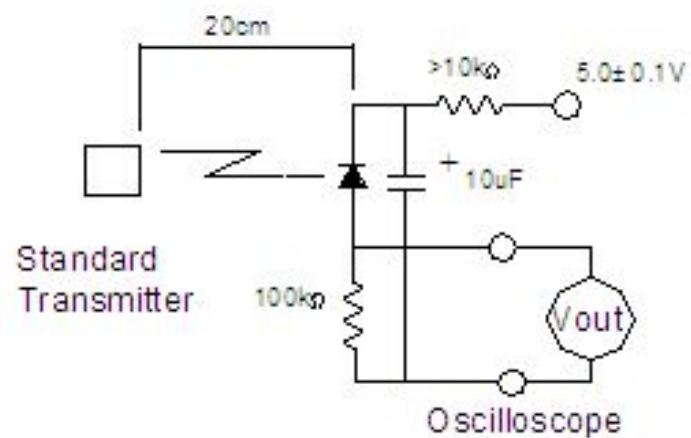


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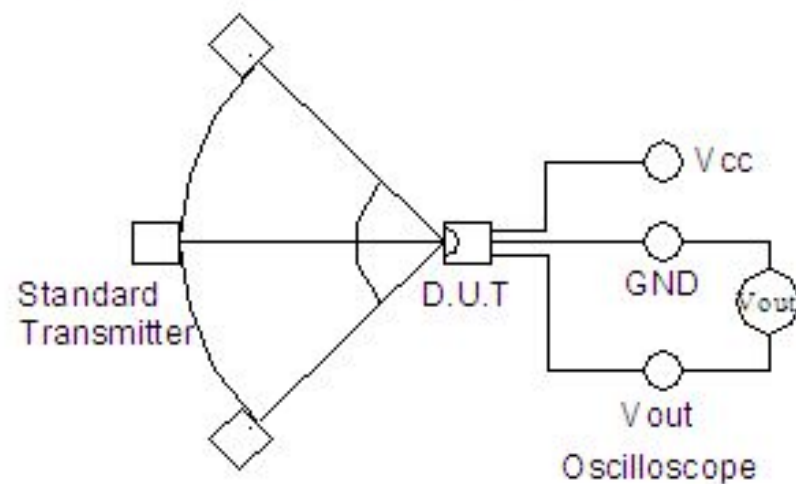
Test Method

A. Standard Transmitter

Transmitter Output



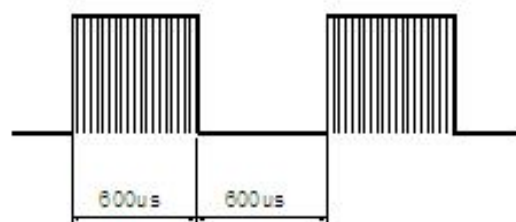
B. Detection Length Test



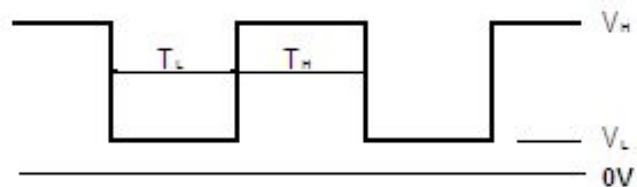
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C.Pulse Width Test

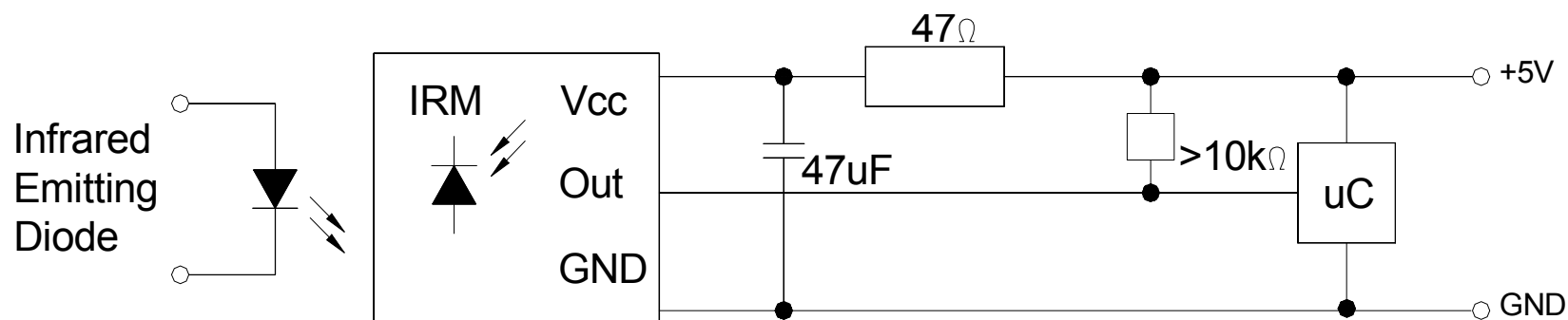
Transmitter Output



D.U.T Output Pulse

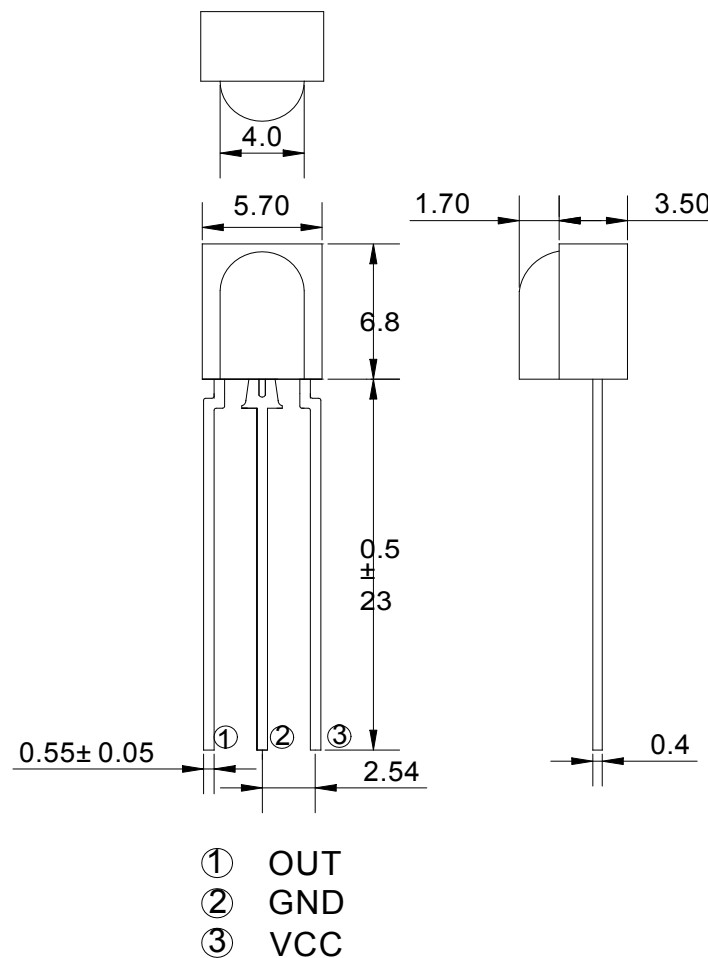


Application Circuit



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Package Dimensions

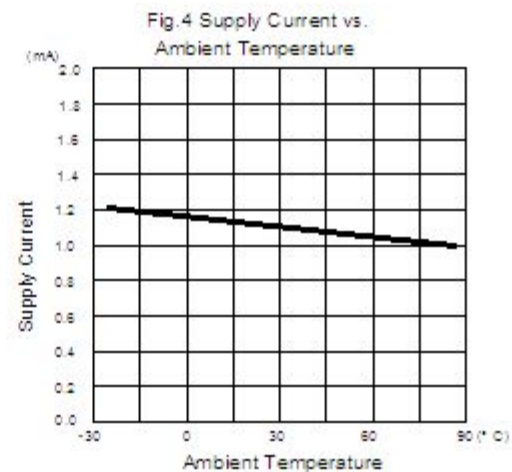
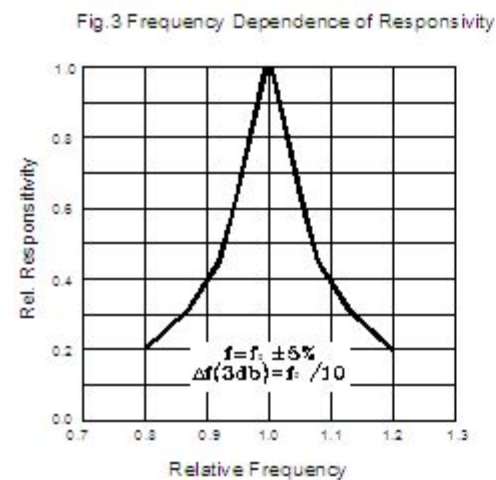
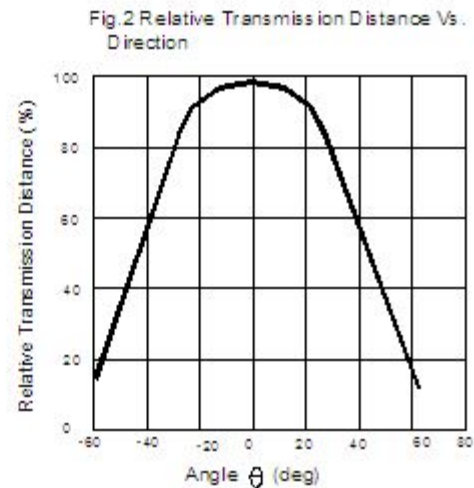
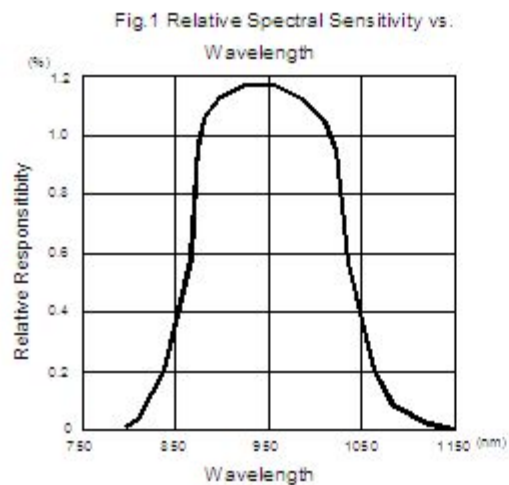


NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.30\text{mm}$ ($0.012''$) unless otherwise specified.
3. Specifications are subject to change without notice.

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Electrical And Optical Curves(Ta=25°C)



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