

## MODEL 產品型號：XL-0638LS

### Description

The XL-0638LS is miniaturized infrared receivers for remote control and other applications requiring improved ambient light rejection.

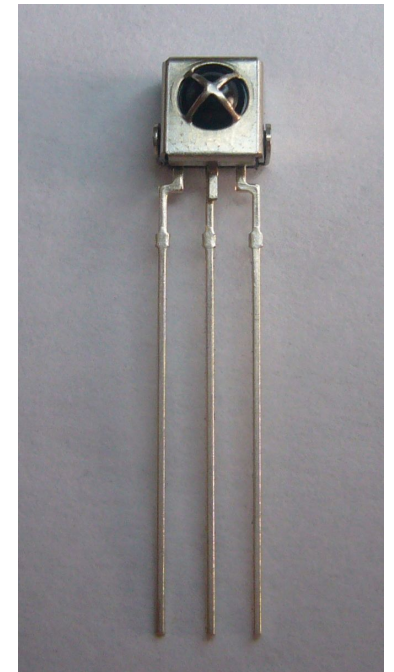
The separate PIN diode and preamplifier IC are assembled on a single leadframe.

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.
- High immunity against ambient light.
- Improved shielding against electric field disturbance



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

TTL and CMOS compatibility.

Suitable transmission code: NEC code, RC5 code.

### **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	V <sub>s</sub>	2.7-6.5	V	—
Operating Temperature	T <sub>opr</sub>	-20~+65	℃	—
Storage Temperature	T <sub>stg</sub>	-40~+85	℃	—
Soldering Temperature	T <sub>sd</sub>	260	℃	4mm from mold body less than 5 sec

**MODEL 產品型號：XL-0638LS****Electrical Optical Characteristics**

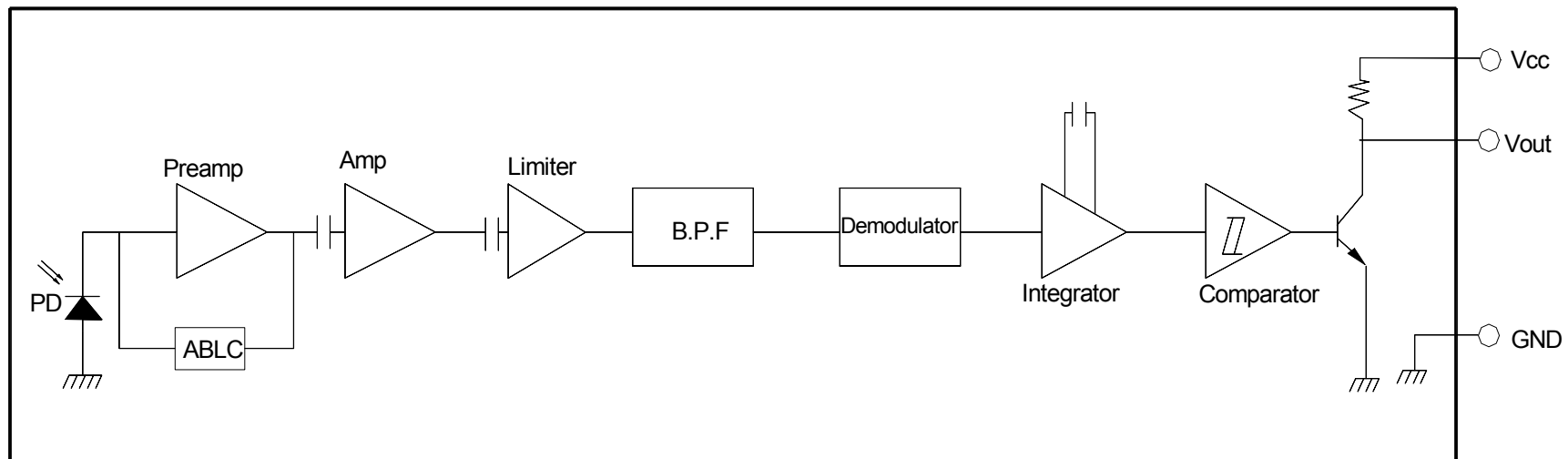
Parameter	Symbol	Ratings			Unit	Condition
		Min.	Typ.	Max.		
Supply Voltage	V <sub>s</sub>	2.7	—	5.5	V	
Supply Current	I <sub>cc</sub>	—	—	1.5	mA	No signal input
Reception Distance	L0	18	—	—	m	At the ray axis*1
	L45	9	—	—		
B.P.F Center Frequency	f <sub>o</sub>	—	38	—	KHz	
Peak Wavelength	λ <sub>p</sub>	—	940	—	nm	
Half Angle	θ	—	45	—	deg	At the ray axis *1
High Level Pulse Width	TH	400	—	800	μS	At the ray axis *2
Low Level Pulse Width	TL	400	—	800	μS	
High Level Output Voltage	V <sub>H</sub>	4.5	—	—	V	
Low Level Output Voltage	V <sub>L</sub>	—	—	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

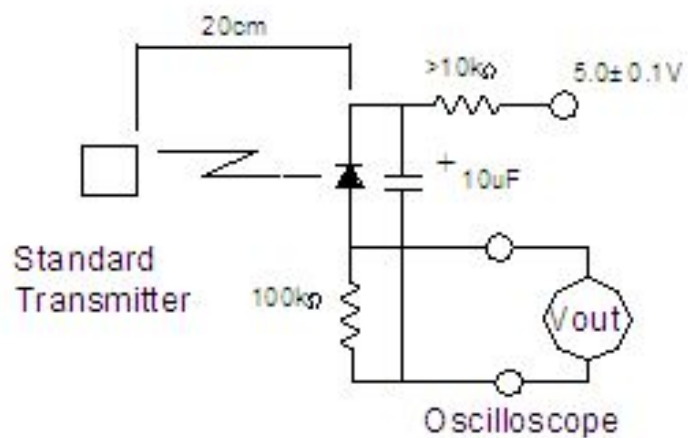


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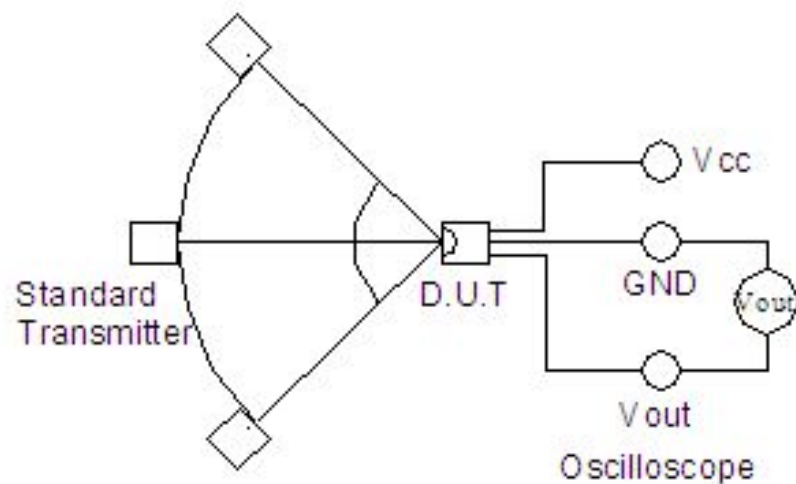
### Test Method

#### A. Standard Transmitter

Transmitter Output



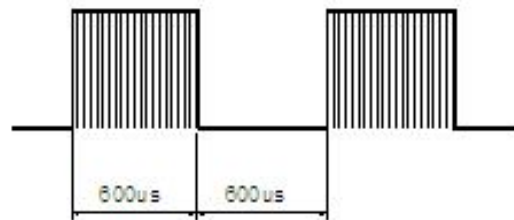
#### B. Detection Length Test



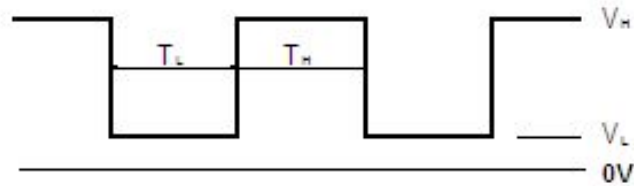
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### C.Pulse Width Test

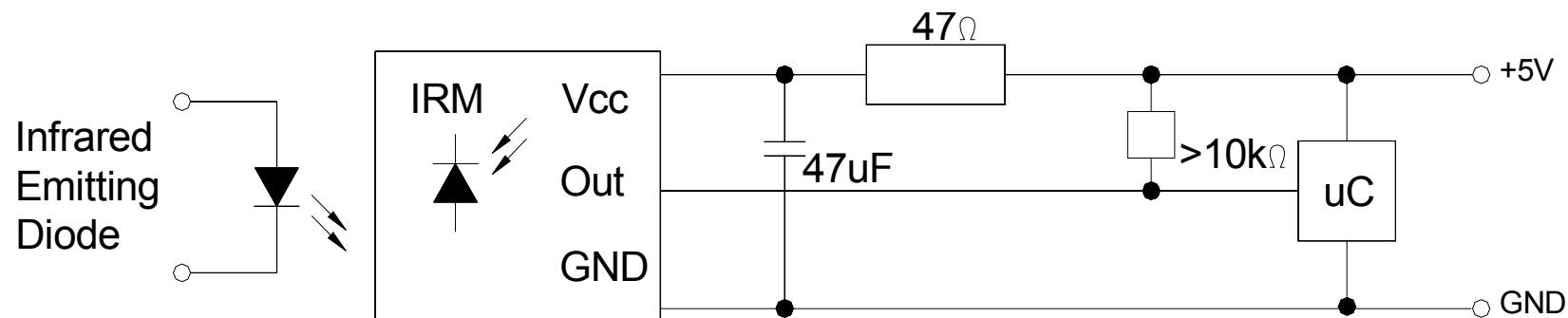
Transmitter Output



D.U.T Output Pulse

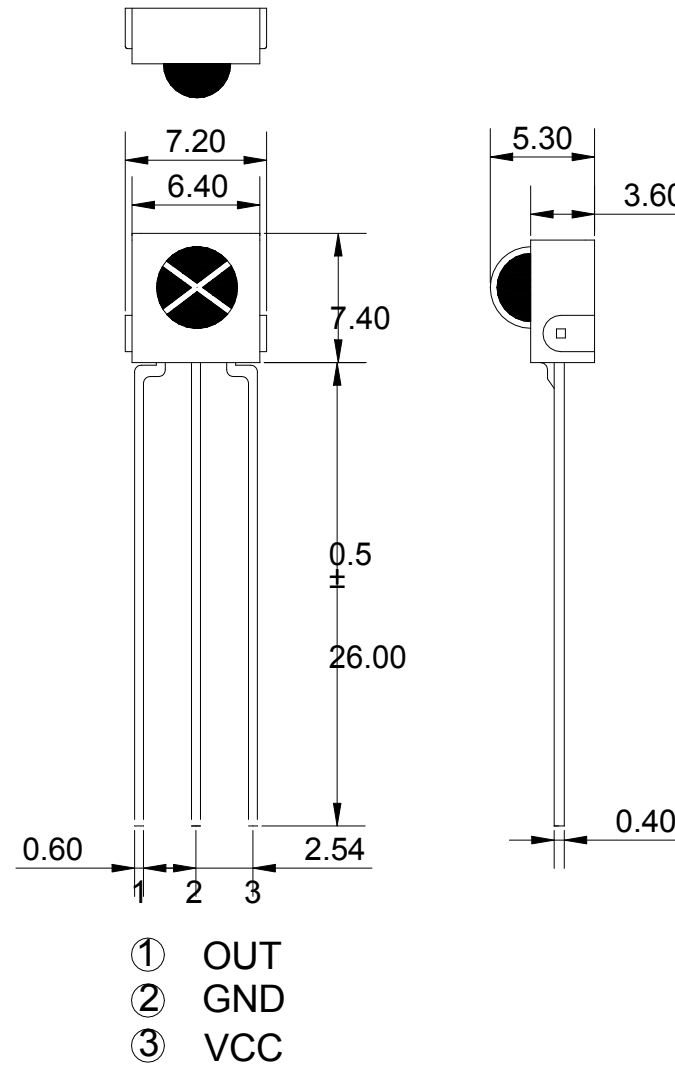


### Application Circuit



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## Package Dimensions



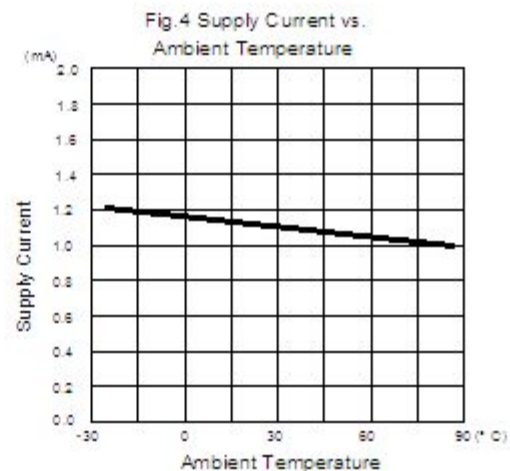
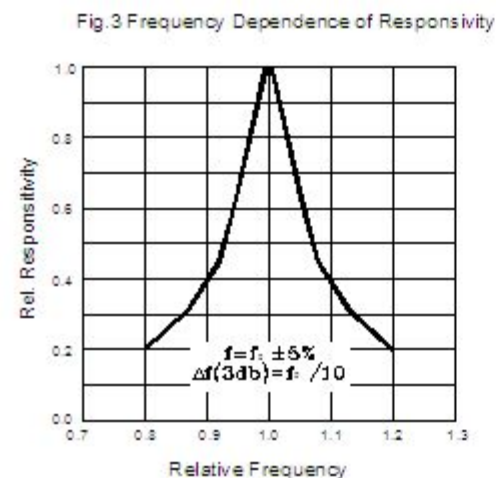
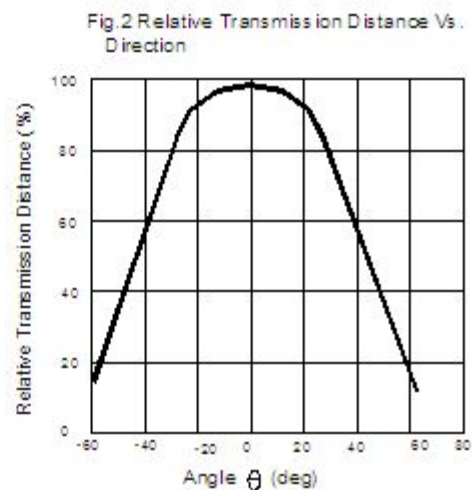
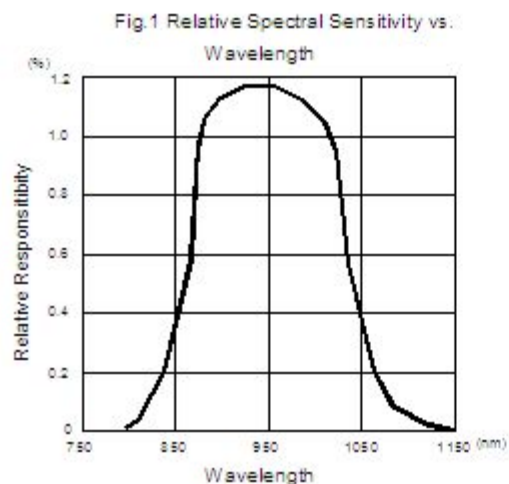
### NOTES:

- 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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