

## Features

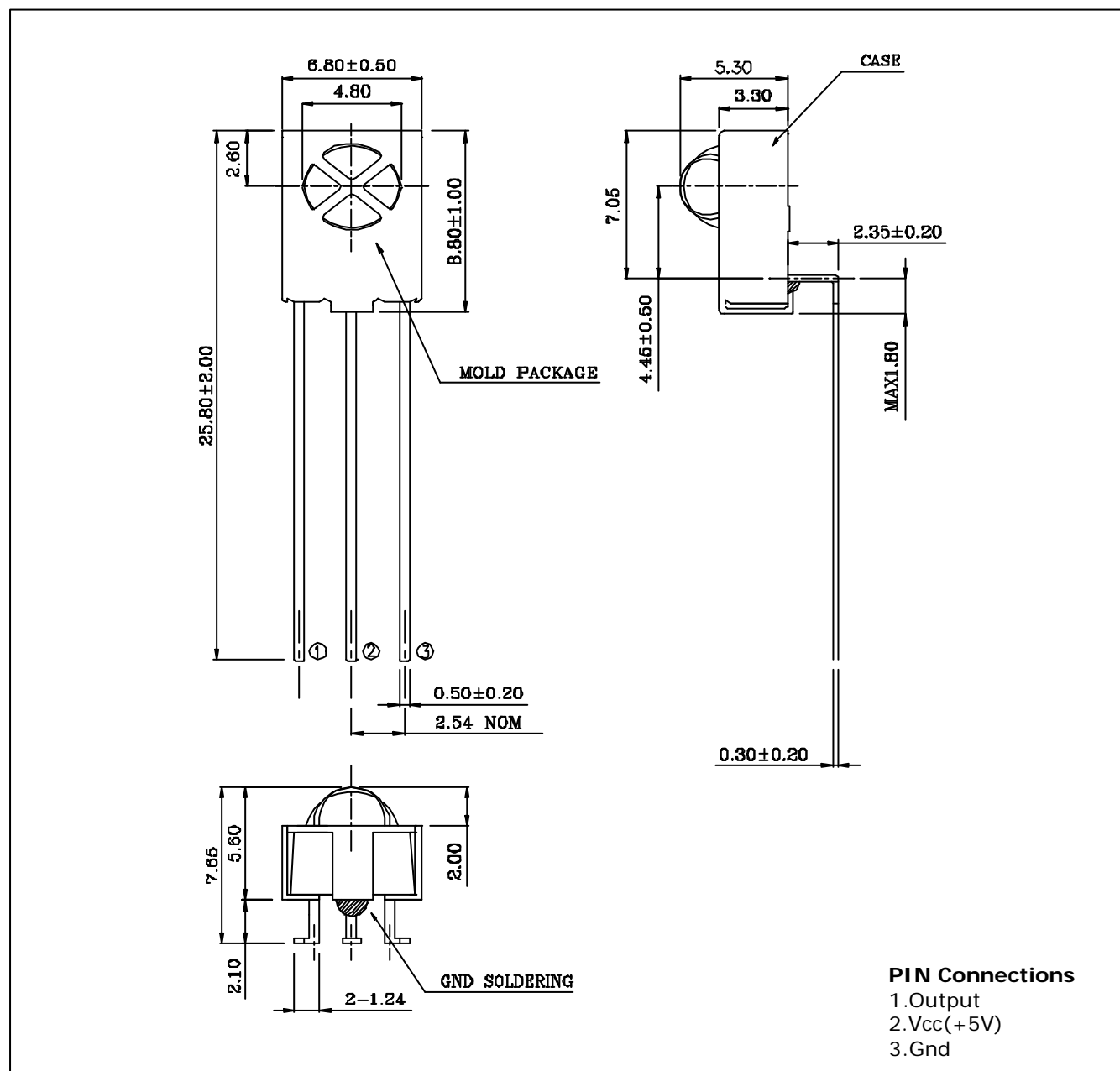
- Photo detector and preamplifier in one package
- Enhanced immunity against all kinds of disturbance light
- High performance photo diode and built-in I.C
- High speed response and output
- Low power consumption and easy use

## Application

- Light detecting portion of remote control
- TVs, VCRs, Audio equipments, CATV Set Top boxes, Multi-media equipments

## Outline Dimensions

unit : mm



## Absolute maximum ratings

Characteristic	Symbol	Ratings	Unit
Supply Voltage	$V_{CC}$	6.0	V
Power Dissipation	$P_D$	0.27	W
Operating Temperature	$T_{opr}$	-10 ~ 60	
Storage Temperature	$T_{stg}$	-20 ~ 75	
*1Soldering Temperature	$T_{sol}$	260 within 5 seconds	

\*1.Keep the distance more than 2.0mm from PCB to the bottom of package

## Electrical Characteristics

(Ta=25°C)

Parameter	Symbol	Test Condition		Min.	Typ.	Max.	Unit
Supply Voltage	V <sub>CC</sub>	-		4.5	5.0	5.5	V
Current Consumption	I <sub>CC</sub>	#1		0.3	-	1.5	mA
Resonance Frequency	f <sub>C</sub>	-		-	38	-	KHz
Peak sensitivity wavelength	λ <sub>p</sub>	-		-	980	-	nm
H level output voltage	V <sub>OH</sub>	#2		4.5	5.0	-	V
L level output voltage	V <sub>OL</sub>			-	0.2	0.4	V
H level pules width	T <sub>wh</sub>			500	-	700	us
L level pules width	T <sub>wl</sub>			500	-	700	us
Arrival distance	L	#2,3,4	± 0°	-	20	-	m
			± 30°	-	15	-	
			± 45°	-	10	-	
Output form	Active low						

Characteristic Diagrams

Fig. 1 Relative Spectral Sensitivity - Wavelength

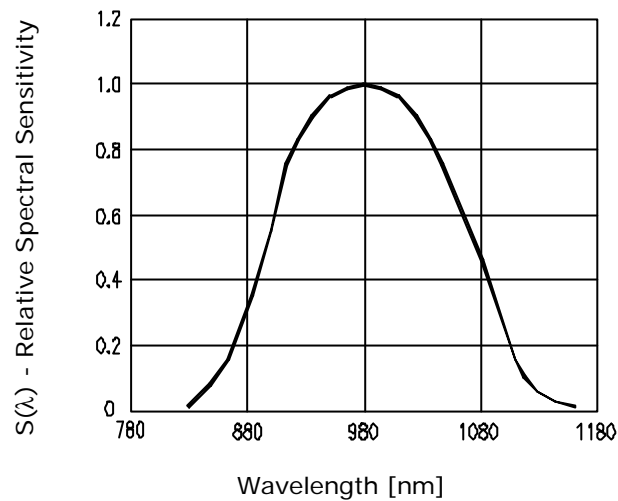
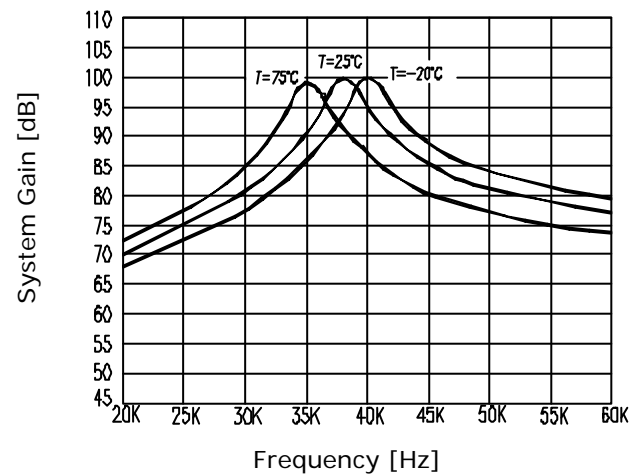
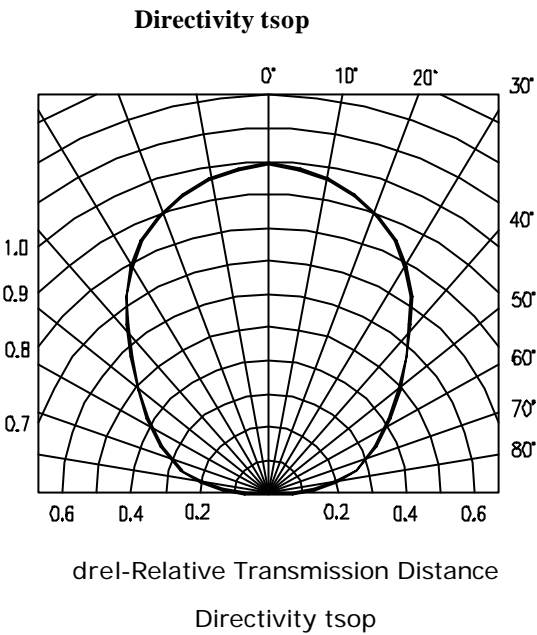


Fig. 2 drel-Relative Transmission Distance



# 1. No input signal.

# 2. The burst wave forms shown below in the Fig 1. Shall be transmitted by the standard transmitter.

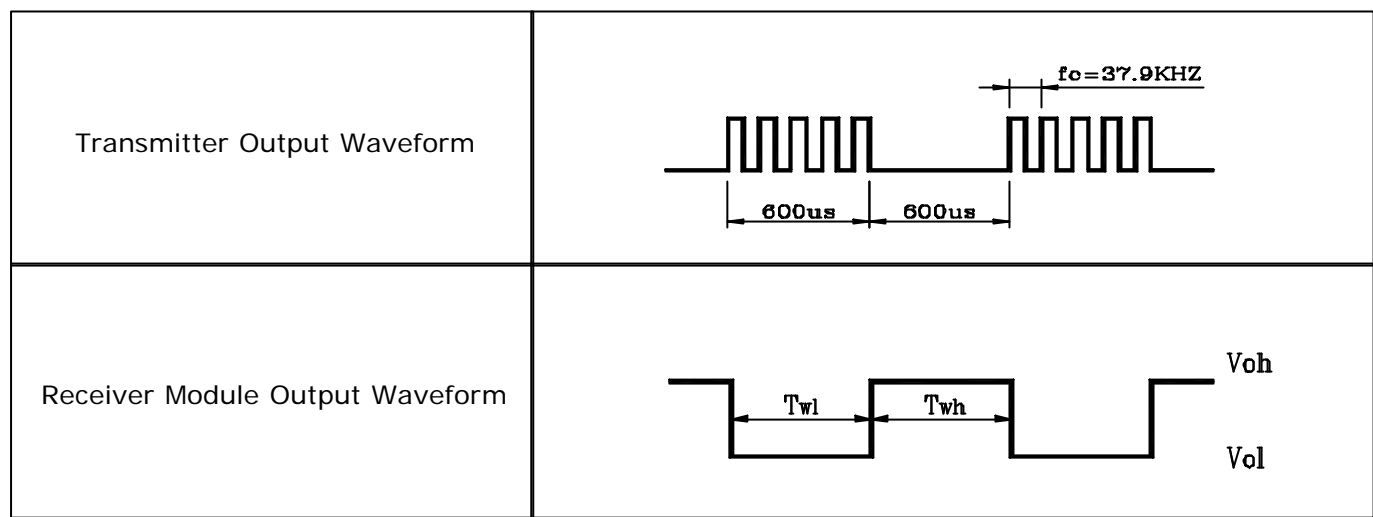
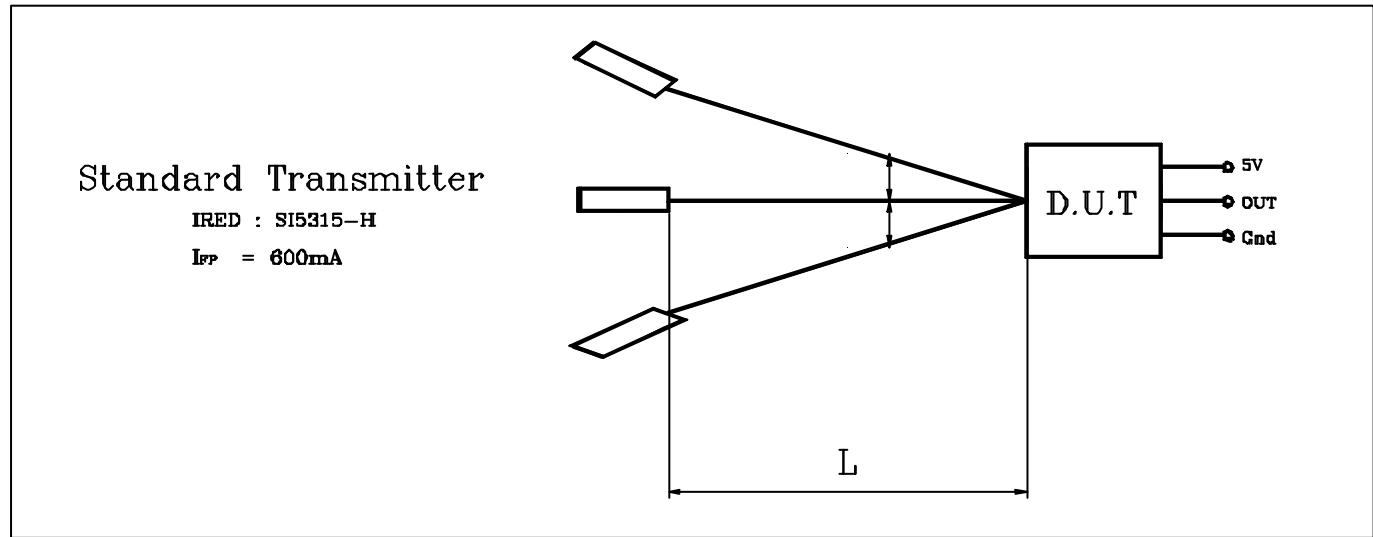


Fig 1. Transmitter & Receiver wave forms

# 3. The test condition of arrival distance.



#4. The arrival distance is measured in the darkness without disturbing noises.

## Reliability Test

Test items	Test condition	Remarks
High temp & High humid	Ta=40 , RH=90%, t=96Hr's	#1, 2
Heat cycle	#2, 3	-
Fall test	#4	-

#1. Supply voltage 5V at the load test.

#2. Electro-optical characteristics shall be satisfied after 2hr's at normal temperature.

#3. Heat cycle test as below Fig2. For 20 cycles under no load.

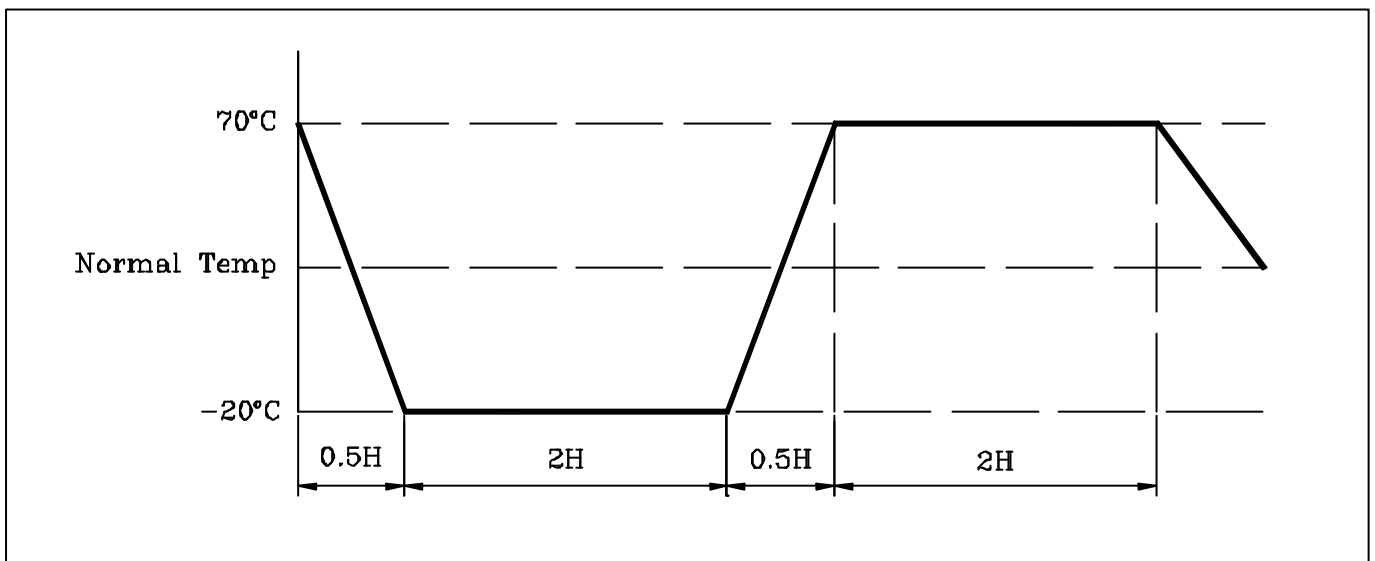


Fig 2. Heat cycle test

#4. Fall test

The test devices to fall three time onto hard wooden board from a level 75 cm

## The others

In case of noisy power supply, please serially insert about 47 resistance an about 47  $\mu$ F electrolytic capacitance in line as follows.

