Product Data Sheet

PN:BYT-0038LND

IR RECEIVER MODULE

ATTENTION

OBSERVE PRECAUTIONS FOR HANDLING
ELECTROSTATIC DISCHARGE
SENSITIVE DEVICES

Features

- Dimensions:6.0×H6.95mm
- Color :IR Receiver Module
- Lens: Black Diffused Epoxy
- Built in special IC
- High reliability,High radiant intensity
- Low forward voltage
- Meet ROHS, Green Product

Applications

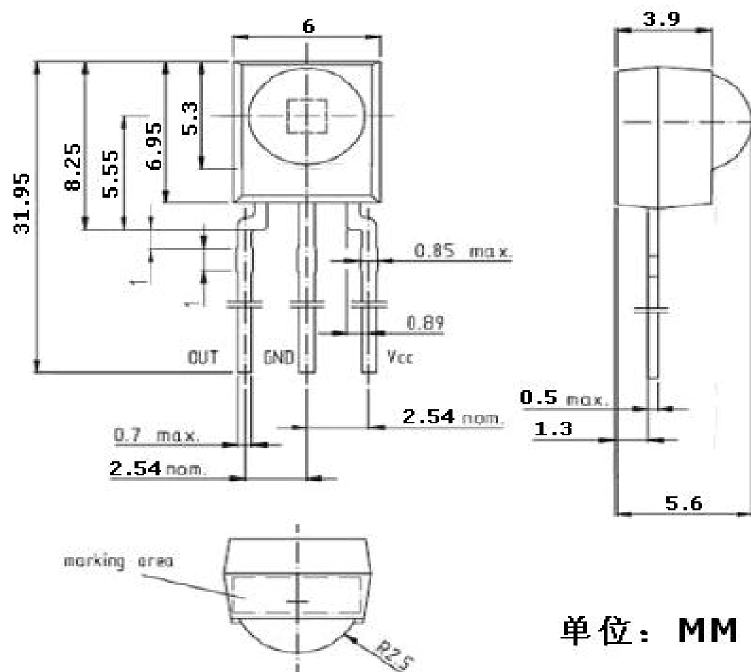
Audio visual equipment

Data Communication

Surveillance

Wireless remote control products

Package Dimensions



Notes:

1.All dimensions are in millimeters ;

2.Tolerance is ± 0.10 mm unless otherwise noted.

Absolute Maximum Ratings (Tc=25℃)

Parameter	Symbol	Rating	Unit
Supply Voltage/Output Voltage	Vcc	6.0	V
Operating Temperature	Topr	-40 ~ +80	°C
Storage Temperature Range	Tstg	-40 ~ +100	°C
Soldering Temperature	Tsol	260	°C
Antistatic bag	Piece	1000	Bag

***Pulse Forward Current Condition:Duty 1% and Pulse Width=10us.**

***Soldering Condition:Soldering condition must be completed with 3 seconds at 260**℃

Electrical Optical Characteristics(Tc=25℃)

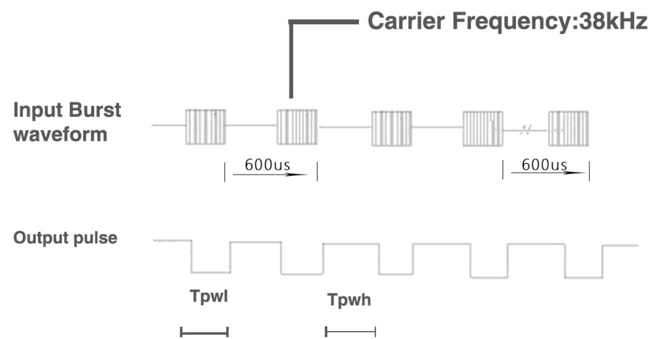
Paramete	Symbol	Condition	Min.	Typ.	Max.	Units
Supply Voltage Range	Vcc		2.7		5.5	V
Arrival Distance	L	L5IR=300mA	15	20		m
B.P.F Center Frequency	f_o			38		KHZ
Receiving angle	2θ1/2			70		deg
B.M.P Width	f_{BW}		3.5	6	8.5	KHZ
Current Consumption	I_{CC}	V_{CC} =5v		1.0	1.5	mA
		V_{CC} =3v		0.9	1.5	
Low Level Output Width	V_{OL}	Isink=2.0mA		0.2	0.4	V
High Level Output Width	V_{OH}	V_{CC} =5v	4.7	5.0		V
		V_{CC} =3v	2.7	3.0		V
Peak wavelength	λP			940		nm
Low Level Output Pulse Width	T_{PWL}	Vin=500u Vp-p	500	600	700	ns
High Level Output Pulse Width	T_{PWH}	Vin=50mVp-p	500	600	700	ns

***Luminous Intensity is measured by ZWL600.**

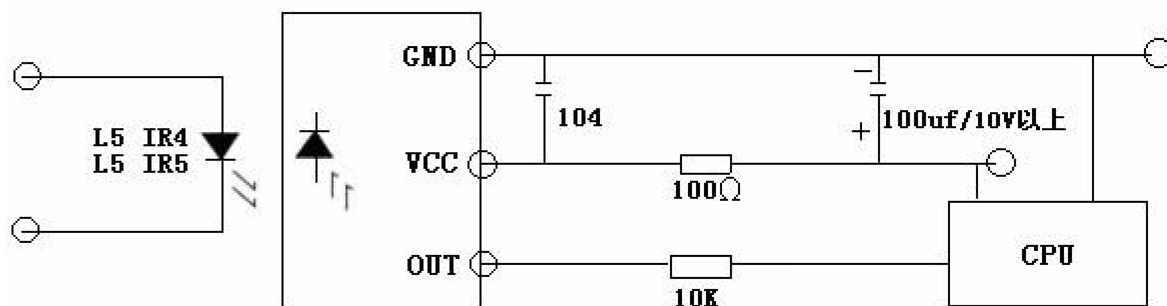
***θ1/2 is the off-axis angle at which the luminous intensity is half the axial luminous intensity.**

Measure method

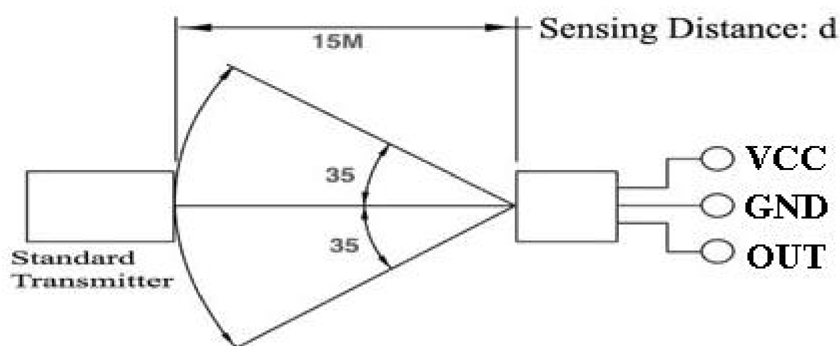
- ### Output Pulse Width



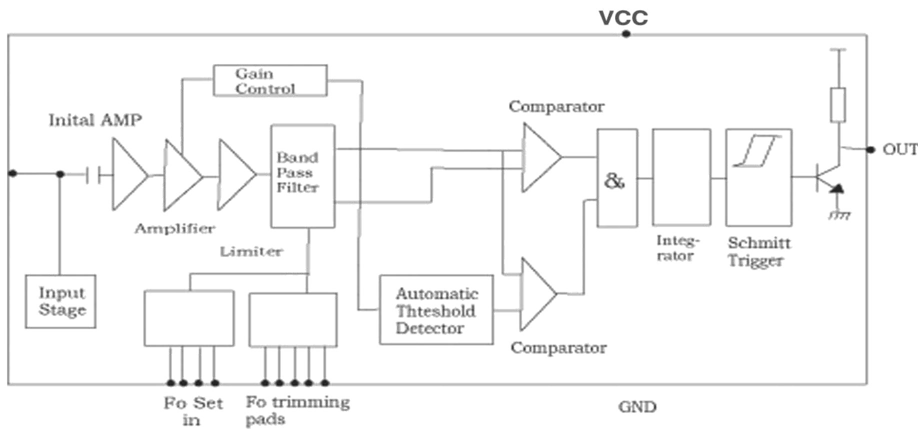
- ### Application circuit diagram



- ### Test Condition of Transmission Distance



Schematic Diagram



Packing Instructions

IR RECEIVER MODULE (1000pcs/Bag---0.5KG)				
QTY	5000pcs	8000pcs	20000pcs	50000PCS
N.W.(KG)	2.5	4	10	25
G.W.(KG)	2.6	4.2	10.7	28.9
Carton Size (cm)	25*25*7	25*25*10	25*25*25	43*43*27

Cautions

Storage conditions

1、 avoid continued exposure to the condensing moisture environment and keep the product away from rapid transitions in ambient temperature.
2、LEDs should be stored with temperature ≤30℃ and relative humidity<60%
3、Product in the original sealed package is recommended to be assembled within 72 hours of opening
4、Product in opened package for more than a week should be baked for 6-8 hours at 85-10℃

LED MOUNTING METHOD

1、The lead pitch of the LED must match the pitch of the mounting holes on the PCB during component placement.
Lead-forming may be required to insure the lead pitch matches the hole pitch.
Refer to the figure below for proper lead forming procedures.
Do not route PCB trace in the contact area between the leadframe and the PCB to prevent short-circuits

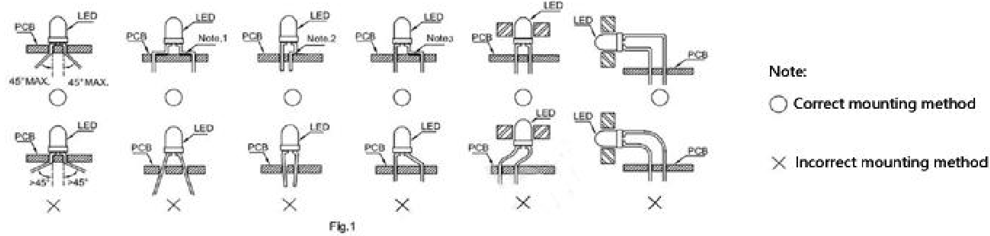


Fig.1

Note:
○ Correct mounting method
× Incorrect mounting method

2、When soldering wires to the LED, each wire joint should be separately insulated with heat-shrink tube to prevent short-circuit contact.
Do not bundle both wires in one heat shrink tube to avoid pinching the LED leads.
Pinching stress on the LED leads may damage the internal structures and cause failure.

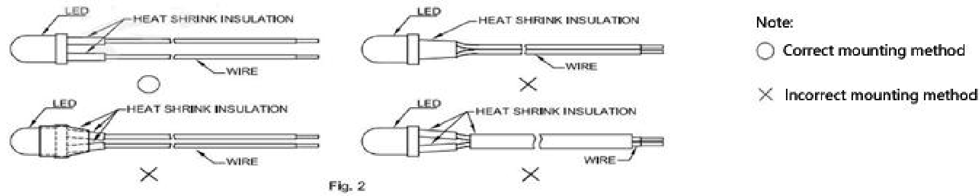


Fig. 2

Note:
○ Correct mounting method
× Incorrect mounting method

3、Use stand-offs (Fig.3) or spacers (Fig.4) to securely position the LED above the PCB.
4. Maintain a minimum of 3mm clearance between the base of the LED lens and the first lead bend (Fig. 5 ,Fig. 6).
5. During lead forming, use tools or jigs to hold the leads securely so that the bending force will not be transmitted to the LED lens and its internal structures. Do not perform lead forming once the component has been mounted onto the PCB.

Fig. 3 Fig. 4

Lead Forming Procedures

1、Lead Forming Procedures
2、Do not bend the leads more than twice. (Fig. 7)
3、During soldering, component covers and holders should leave clearance to avoid placing damaging stress on the LED during soldering. (Fig. 8)
4、The tip of the soldering iron should never touch the lens epoxy.
5、Through-hole LEDs are incompatible with reflow soldering.
6、If the LED will undergo multiple soldering passes or face other processes where the part may be subjected to intense heat, please check with Bestsmd for compatibility.

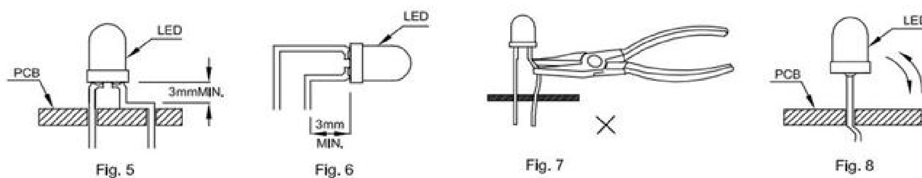
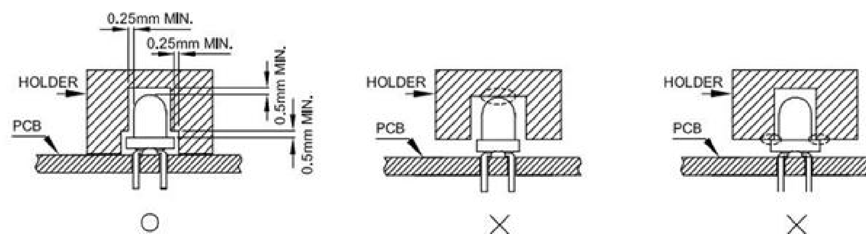


Fig. 5 Fig. 6 Fig. 7 Fig. 8



Note: ○ Correct mounting method × Incorrect mounting method