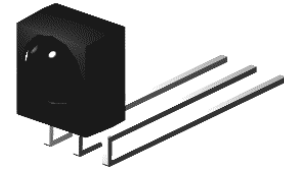


Infrared Receiver Modules 38KHz

OS 13B7

Description

The OS 13B7 is a mini type of Infrared Receiver Module. Its self construction consists of a Pin Diode and Pre-amplifier assembled on the lead frame. The design of the lead frame is capable of reducing Electrical Field Disturbance and thus, the module itself is not affected by ambient light disturbance. The Voltage supply is ranging from 4.5V ~ 6.0V and is compatible to TTL and CMOS.

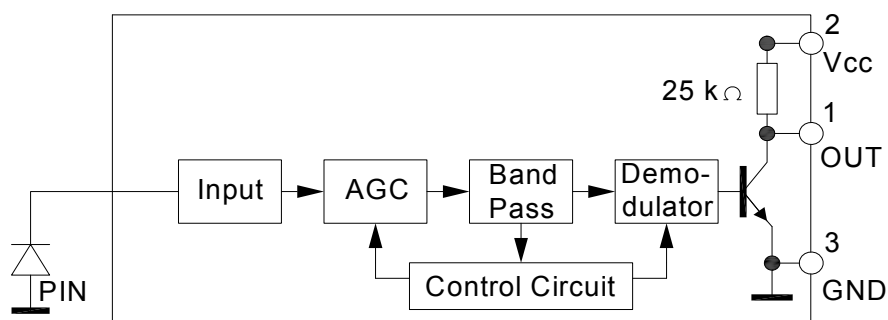


Applications

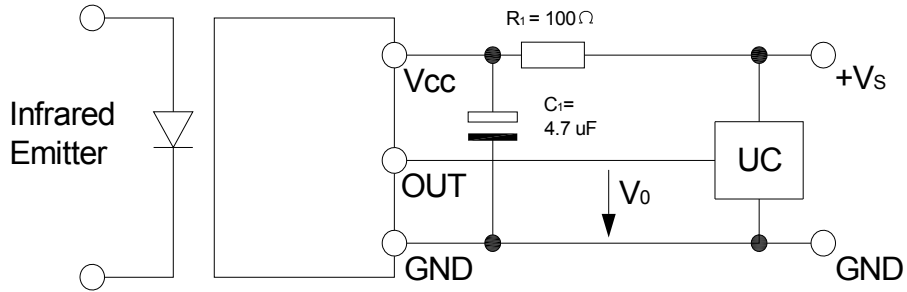
- Light detecting portion
- AV instruments
- CATV set top boxes
- Multi-media equipments
- Equipments with wireless remote control



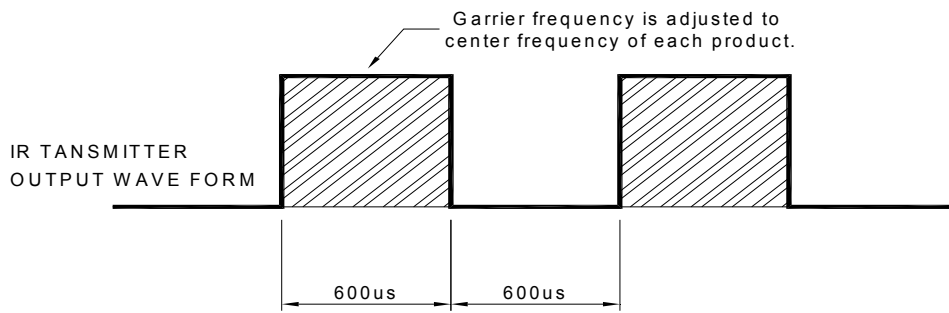
Block diagram



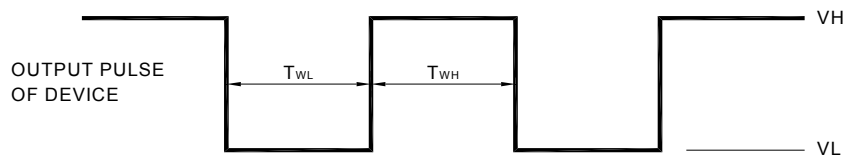
Application Circuit



Transmitter Wave Form

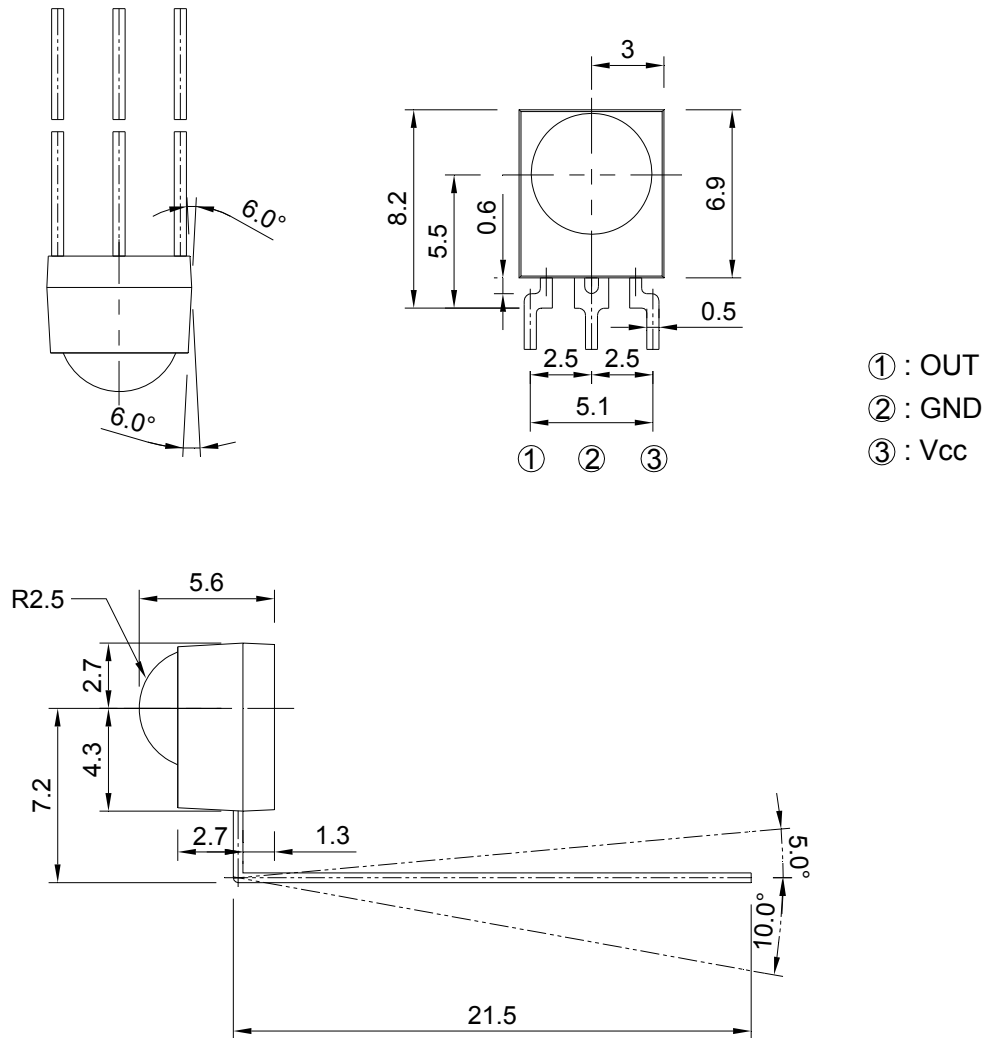


D.U.T out put Pulse



Package Dimension

unit: mm



Notes:

1. All dimensions are millimeters.
2. Tolerance is $\pm 0.2\text{mm}$ unless otherwise specified.
3. Specifications are subject to change without notice.

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Supply Voltage	Vcc	0~6.0	V
Soldering Temperature	Tsol	260	°C
Storage Temperature	Tstg	-40 - +85	°C
Operating Temperature	Topr	-25 - +85	°C

Note: Please take note the Absolute Maximum Rating values. Any operation beyond the specified ratings in this table will result degradation of life-span and may cause product to fail.

Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Supply Voltage	Vcc	4.5	5.0	5.5	V
Consumption Current	Icc	--	1.3	3.0	mA
B.P.F Center Frequency	Fo	---	38	---	KHz
Peak Wavelength	λ_p	---	940	---	nm
Reception Distance	L ₀	14	--	---	m
	L ₄₅	6	--	---	
Half Angle (Horizontal)	Θ_h	---	45	---	deg
Half Angle (Vertical)	Θ_v	---	45	---	deg
High Pulse Width	T _H	400	---	800	μs
Low Pulse Width	T _L	400	---	800	μs
High Output Voltage	V _H	4.5	---	---	V
Low Output Voltage	V _L	---	0.2	0.5	V

Electrical Characteristics Curves:

