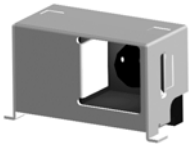
Infrared Receiver Modules SMD Package

OS 55H7

Description

The OS 55H7 series is a mini type of surface mount Infrared Receiver Module. It's construction consist of Pin Diode and Preamplifier assembled on the lead frame. The design of the constructive 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 2.5V ~ 5.5V and is compatibility to TTL and CMOS.
Suitable min. burst length ≧ 10 pulses/burst



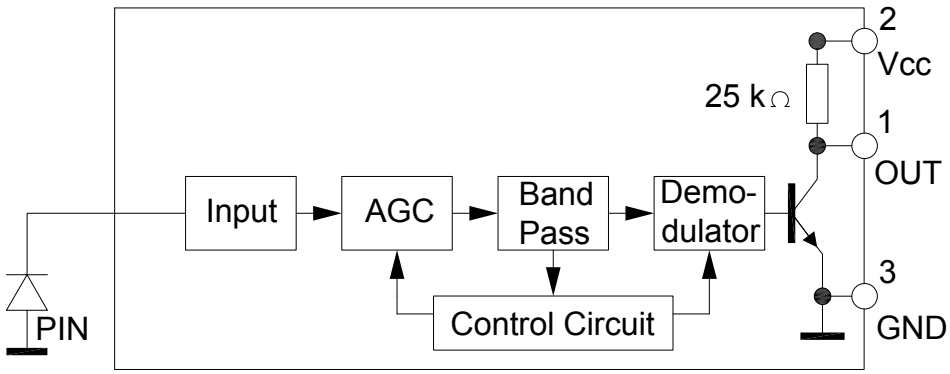
RoHS

Pb
pb-free

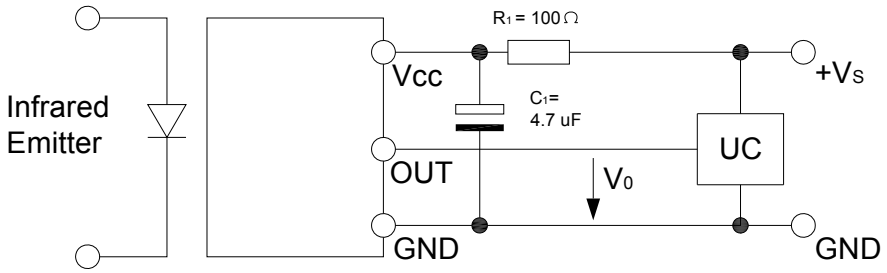
Applications

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

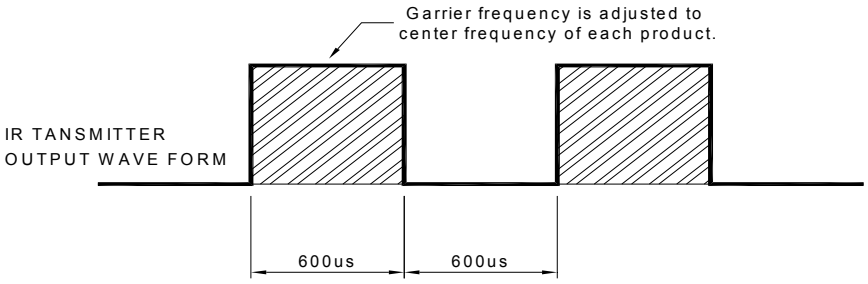
Block Diagram



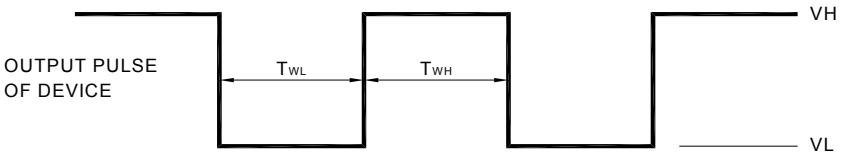
Application Circuit



Transmitter Wave Form

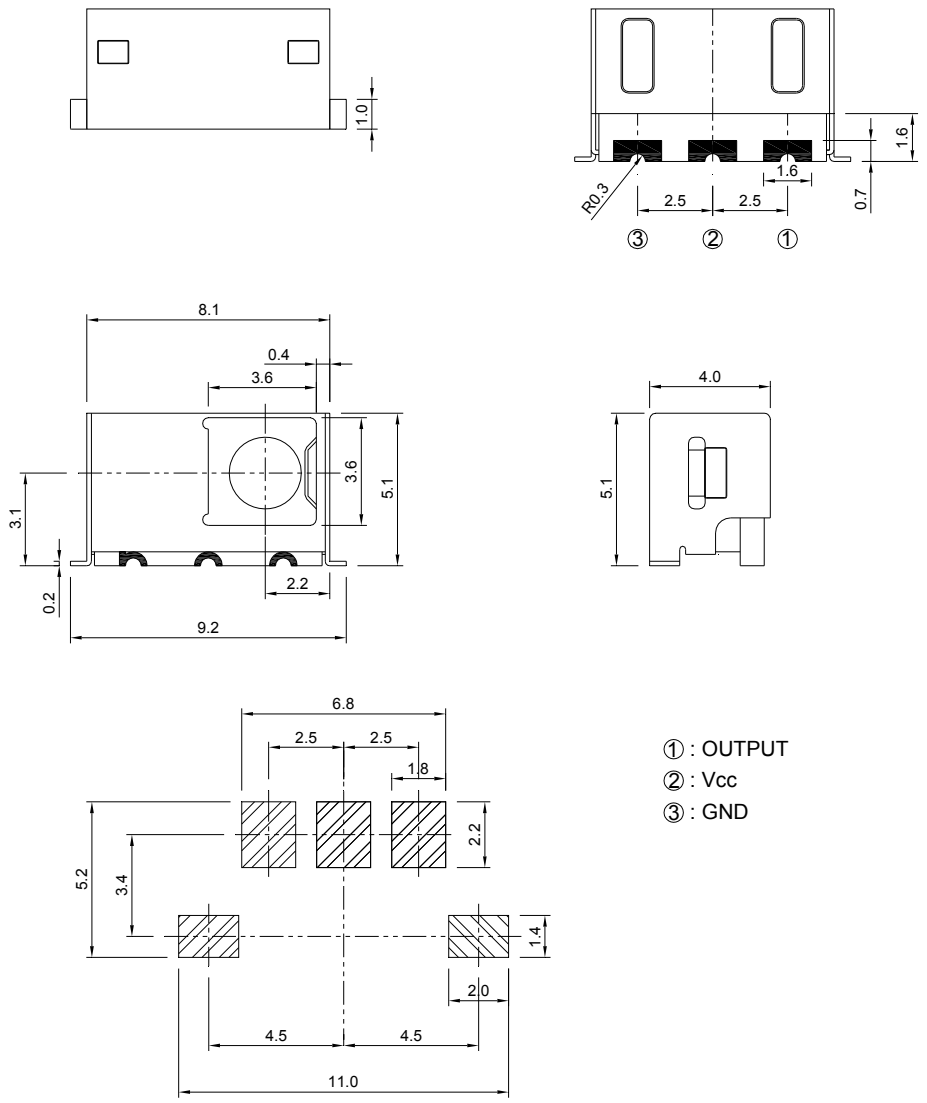


D.U.T out put Pulse



Package Dimension

unit: mm



① : OUTPUT
② : Vcc
③ : GND

Recommended Soldering Pad

Notes:

1. All dimensions are millimeters.
2. Tolerance is ± 0.2mm unless otherwise noted.
3. Specifications are subject to change without notice.

Absolute Maximum Ratings (Ta=25℃)

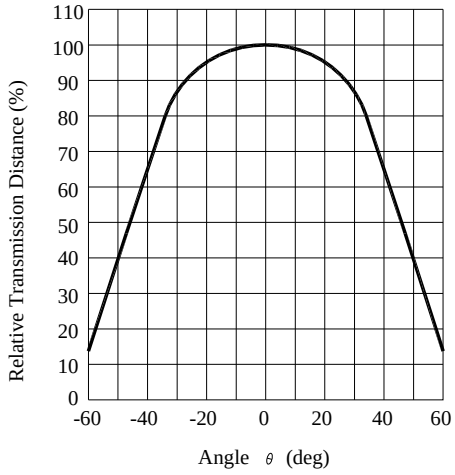
Parameter	Symbol	Rating	Unit
Supply Voltage	Vcc	0~6	V
Soldering Temperature	Tsol	260	℃
Storage Temperature	Tstg	-40 - +85	℃
Operating Temperature	Topr	-25 - +85	℃

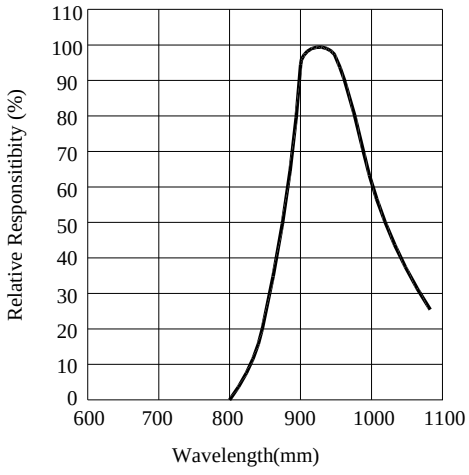
Note: Please take note the Absolute Maximum Rating values. Any operation beyond the specified ratings in this table will result degradation of life-span and may cause product to fail.

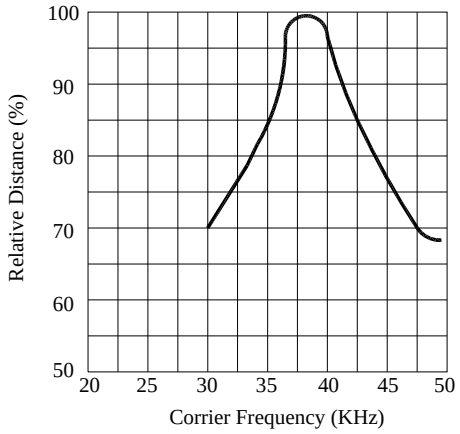
Electro-Optical Characteristics (Ta=25℃)

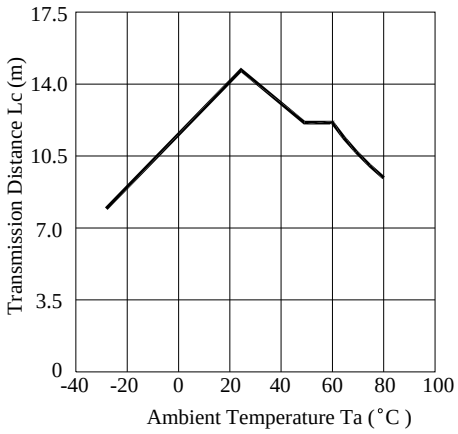
Parameter	Symbol	Min.	Typ.	Max.	Unit
Consumption Current	Icc	--	--	1.2	mA
B.P.F Carrier Frequency	Fo	---	38	---	KHz
Peak Wavelength	λ_p	---	940	---	nm
Reception Distance	L_0	10	---	---	m
	L_{45}	5	---	---	
Half Angle (Horizontal)	Θ_h	---	45	---	deg
Half Angle (Vertical)	Θ_v	---	45	---	deg
High Pulse Width	T_H	400	---	800	μs
Low Pulse Width	T_L	400	---	800	μs
High Output Voltage	V_H	2.7	---	---	V
Low Output Voltage	V_L	---	0.2	0.5	V

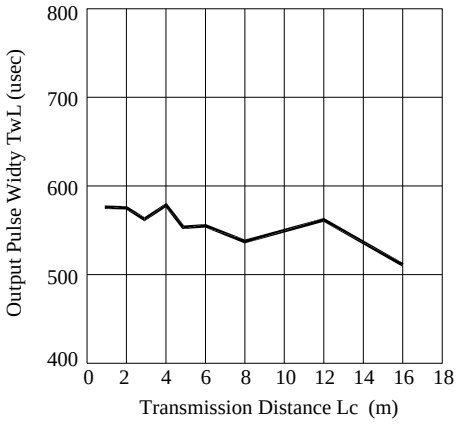
Electrical Characteristics Curves:

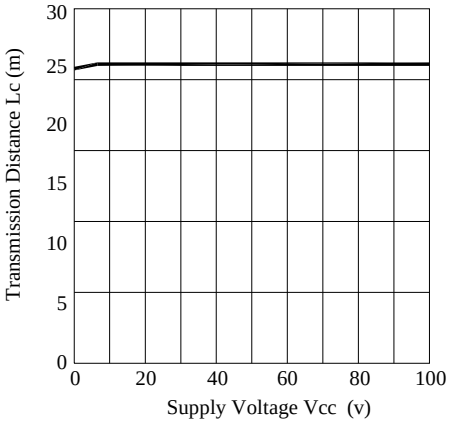












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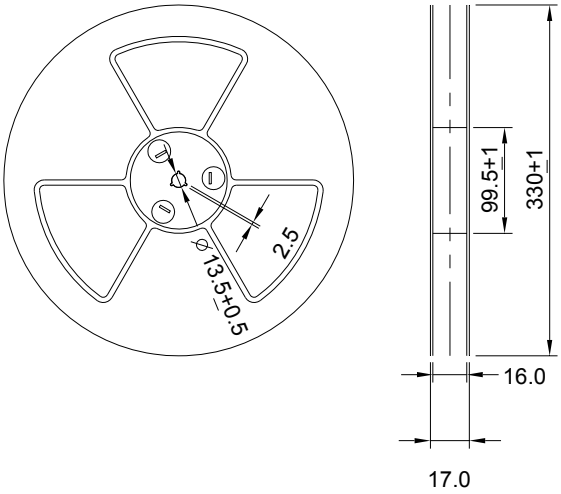
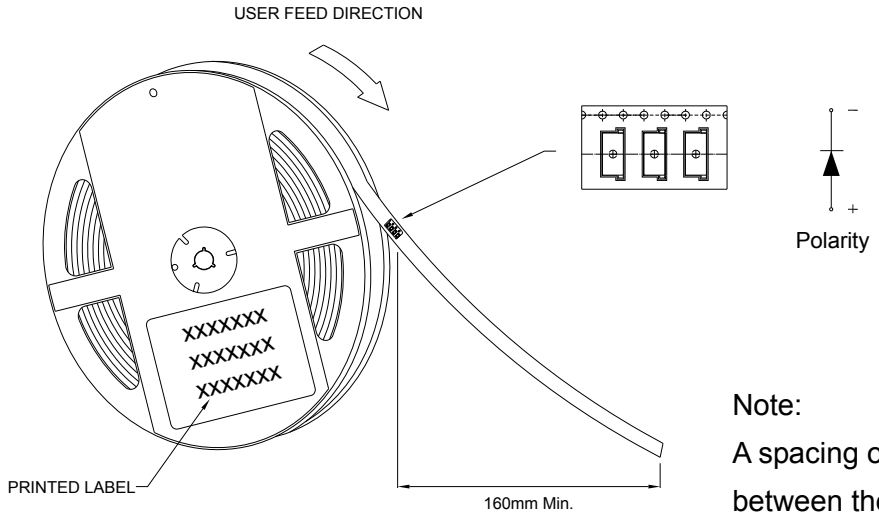
Reel Dimension:

unit : mm



Note:

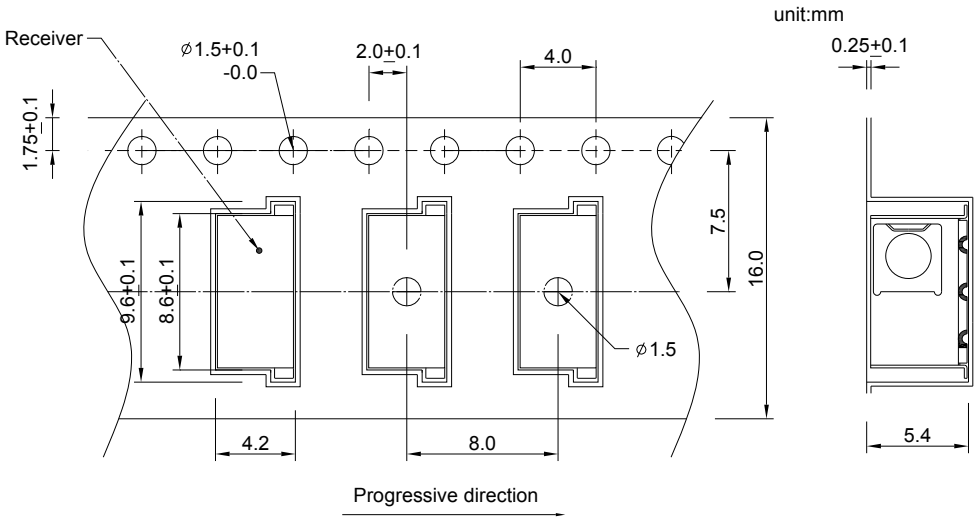
Available in 15 mm carrier tape on 330mm diameter reels. (1000 pieces)



Note:

A spacing of approximately 160mm between the front edge of tape

Tape Dimension:



Notes:

Storage

Recommend Devices to be kept in a DRY BOX. If such is not available, please ensure these Devices are kept in the following conditions:

1.1 Temperature: +10C ~ +30C, <RH60%

1.2 After opening the package, if the devices are left unattended for more than 72 hours at an environment greater than 1.1, baking treatment should be performed as per below conditions:

(a) Nitrogen gas / Dry Air method: +40C ~ +45C, RH5%, 192 hours

(b) Use of proper moisture prevention equipment: +60C ~ +65C, RH5%, 96 hours

(c) Baking Oven: +125C ~ +130C, 24 hours (Note: not recommended for Devices in Tape & Reel)

Re-flow soldering

1. No. of cycles: 2 times max.
2. Not recommended to exert any stress on Devices during soldering process
3. Immediately after soldering, do not bend PCB
4. Refer below soldering profile:

Recommended Solder Profile