

■Features

- Miniature size
- Built-in exclusive IC
- Wide half angle & long reception distance
- Good noise-proof capability
- High immunity against ambient light
- Back Metal Cover
- Side view
- Mesh

■Applications

- AV instruments (Audio, TV, VCR, CD player)
- Home appliances (Air-conditioner, Fan, Light.)
- Remote control for wireless devices

■Absolute Maximum Rating

(Ta=25°C)

Parameter	Symbol	Ratings	Unit
Supply Voltage	V _{cc}	6.0	V
Operating Temperature	T _{opr}	-10 ~ +60	°C
Storage Temperature	T _{stg}	-20 ~ +75	°C
Lead Soldering Temperature *1	T _{sol}	260°C	-

*1 At the position of 2mm from the bottom of the package within 5 seconds

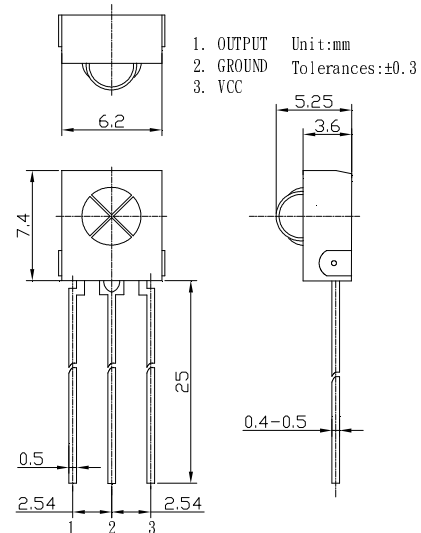
■Electrical -Optical Characteristics

(Ta=25°C)

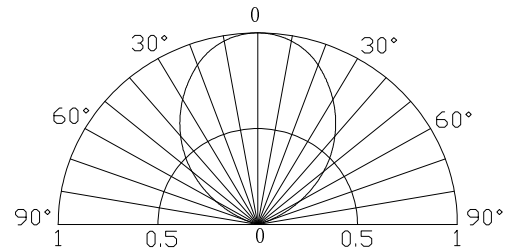
Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Supply Voltage	V _{cc}		2.7	3.0	5.5	V
Current Consumption	I _{cc}	Input signal=0	-	0.9	1.5	mA
Reception Distance	d	200 ± 5Lux, V _{cc} =3V	15	20	-	m
B.P.F. Center Frequency	F _o		-	37.9	-	KHZ
Peak Wavelength	λ _p		-	940	-	nm
Signal Output	S _o		--Active Low--			
High level output voltage	V _{oh}	V _{cc} =3V	2.7	3.0		V
		V _{cc} =5V	4.7	5.0		V
Low level output voltage	V _{ol}	V _{in} =0V I _{sink} =2.0mA	-	0.2	0.4	V
Burst width tolerance *2	B _w	Burst Wave=600 μs	400	600	800	μs
Half Angle	Δ θ			90		deg

*2 The output tolerance of burst width received when transmitter sends the burst wave.

■Outline Dimension

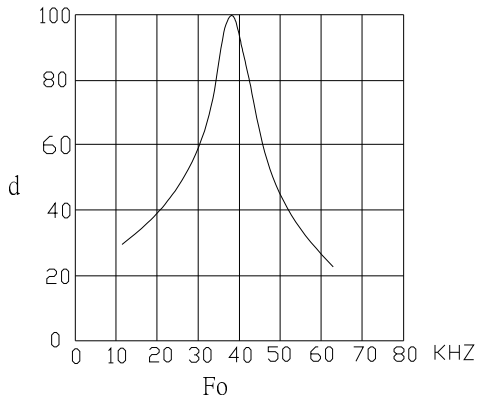


■Directivity



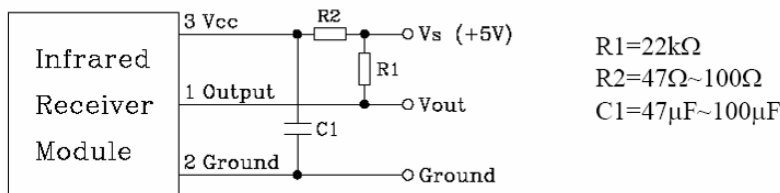
■ Carrier Frequency

Relative Reception Distance vs Transmitter carrier Frequency

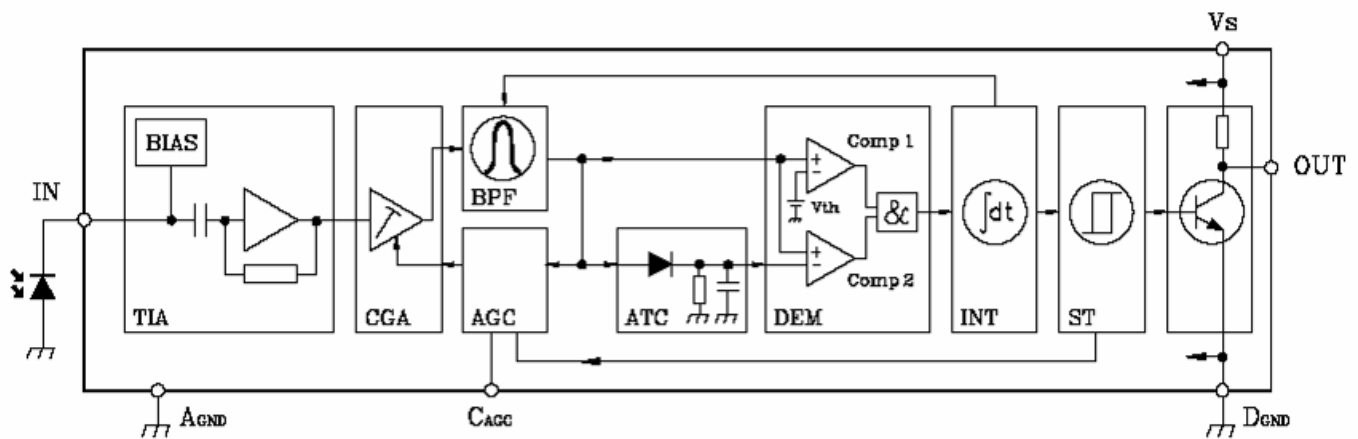


■ For Noisy Power Supply

In case of noisy power supply, please serially insert 100Ω resistor and about 47 μ F electrolytic capacitor in Vcc line and ground as follows:



■ Block Diagram



- | | | | |
|-----|---------------------------|-----|-----------------------------|
| TIA | Transimpedance amplifier | ATC | Automatic threshold control |
| CGA | Controlled gain amplifier | DEM | Demodulator |
| BPF | Bandpass filter | INT | Integrator |
| AGC | Automatic gain control | ST | Schmitt trigger |

■ Testing Method

Distance between emitter and detector specifies maximum distance that output waveform satisfies the standard (FIG-3) under the standard transmitter.

a. Measuring place

Indoor Without extreme reflection of light.

b. Ambient light source

Detecting surface illumination is $200 \pm 5 \text{Lux}$ under ordinary white fluorescence lamp of no high frequency lightning.

c. Standard transmitter

Transmitter wave indicated in FIG-2 of standard transmitter is arranged to satisfy $V_o \geq 50 \text{mVp-p}$ under the measuring circuit specified in FIG-3

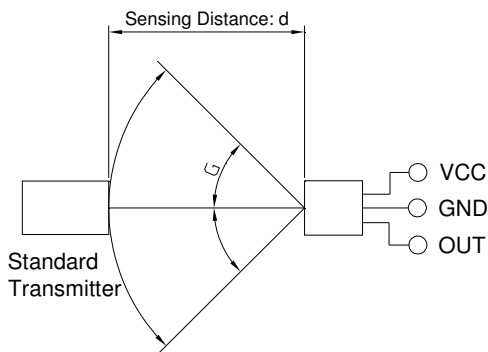


FIG-1

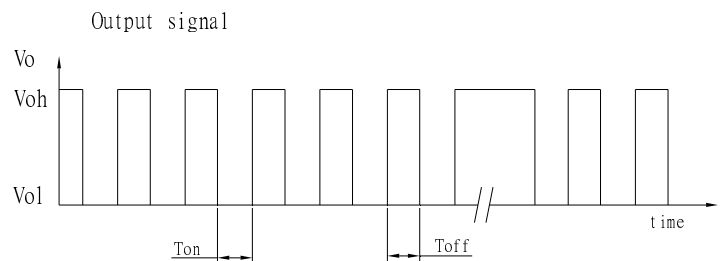
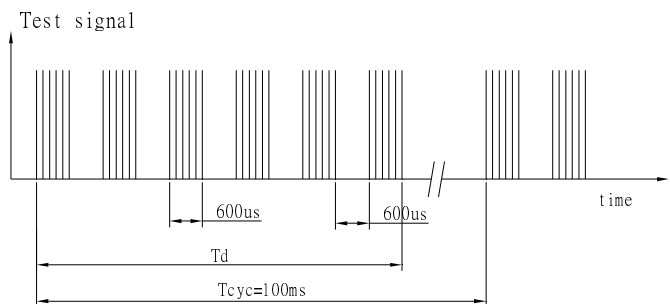


FIG-2

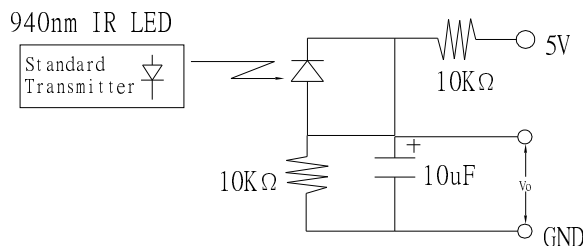


FIG-3 Power Output Measurement Circuit

■ Precautions for Use

- Store and use where there is no force causing transformation or change in quality.
- Store and use where there is no corrosive gas or sea(salt) breeze.
- Store and use where there is no extreme humidity.
- Solder the lead pin within the condition of ratings. After soldering, do not add exterior force.
- Do not wash this device. Wipe the stains of diode side with a soft cloth. You can use the solvent, ethyl alcohol, or methyl alcohol only.
- To prevent static electricity damage to the pre-amp, make sure that the human body, the soldering iron are connected to ground before using.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Infrared Receivers](#) category:

Click to view products by [Optosupply](#) manufacturer:

Other Similar products are found below :

[TSOP38436](#) [TSOP6136TR](#) [TSOP2456](#) [TSOP31456](#) [TSOP34356](#) [TSOP34456](#) [TSOP38336](#) [TSOP6130TT](#) [TSOP6940TT](#) [TSOP34438SS1V](#)
[GP1UX511QS](#) [TSOP34336SS1F](#) [TSSP57038ETT1](#) [TSOP57438ETT1](#) [TSOP37438HTT1](#) [TSOP6140TR](#) [TSOP53356](#) [TSOP53238](#)
[TSOP33238](#) [TSOP33256](#) [TSOP53256](#) [TSOP33138](#) [TSOP6133TT](#) [HL-PST-1608PT1F](#) [PT2424-6B](#) [TSOP37540QHTT1](#)
[E6C0805PRAC1UDA](#) [TSOP31136](#) [TSOP31140](#) [TSOP75238WTT](#) [RPM5537-H14E2A](#) [RPM6937-V4](#) [RPM7136-H4R](#) [RPM7238-H5R](#)
[TSOP4156](#) [TSOP6156TR](#) [TSOP75336WTT](#) [TSOP75338TR](#) [TSSP77038TT](#) [PD70-01C/TR7](#) [TSSP57P38TT1](#) [GP1UE292QKVF](#)
[GP1UM281XKVF](#) [GP1UM287RKVF](#) [GP1UM287XK](#) [TSOP59438](#) [TSOP58336](#) [TSOP38156](#) [PT19-21B/L41/TR8](#) [PD15-22C/TR8](#)