

SHARP®

IS1U30

OPIC Detector

OPIC DETECTOR FOR IR DATA COMMUNICATION (CONFORMS TO IrDA 1.1)

GENERAL DESCRIPTION

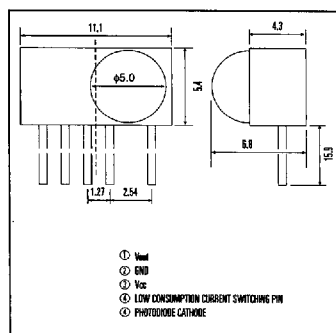
SHARP's IS1U30 is an OPIC detector that conforms to IrDA 1.1 standards for IR data communication.

Its OPIC structure permits a reduction in the total IR system parts count.

FEATURE

- (1) OPIC detector conforms to IrDA 1.1 (Data rate: 1.15 Mbps/4Mbps)
- Compatibility with IrDA 1.0 (9.6kbps-115.2kbps)
- Compact OPIC design (One device)
- Low current consumption (Stand-by mode: TYP.200 μ A)
- Visible light cut-off type

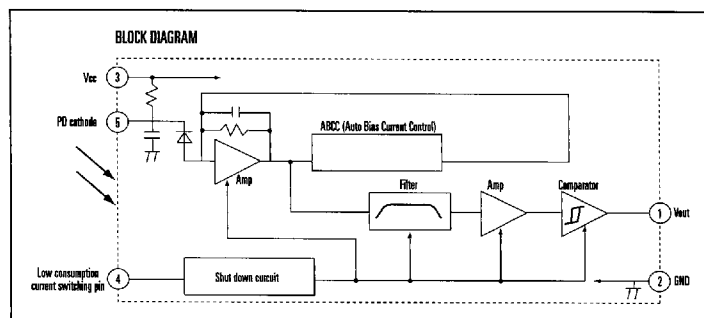
OUTLINE DIMENSIONS (Unit:mm)



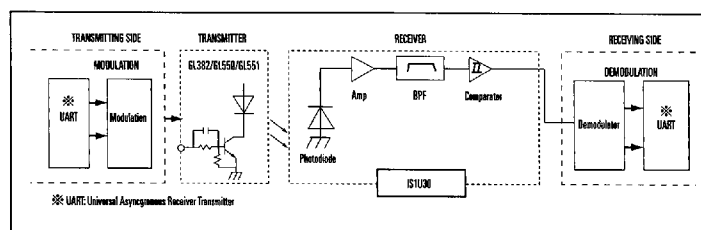
APPLICATIONS:

- Personal Computer
- Personal Digital Assistant
- Printer

BLOCK DIAGRAM



IrDA1.1 SYSTEM



*UART: Universal Asynchronous Receiver Transmitter

PRECAUTION

In the absence of confirmation by device specification sheets, SHARP takes no responsibility for any defects that occur in equipment using any of SHARP's device, shown in catalogs, data books, etc. Contact SHARP in order to obtain the latest version of the device specification sheets before using any SHARP's device.

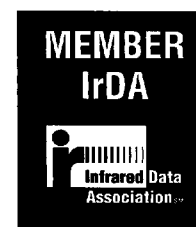
Specifications are subject to change without notice.

All devices should be handled according to the precautions for use in specifications and data book.

CHARACTERISTICS

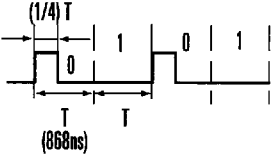
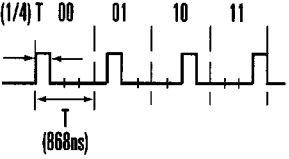
(Ta=25 °C)

Parameter	Symbol	Characteristics	Condition
Operating supply voltage	Vcc	5V±10%	—
Consumption current	Icc	TYP 8 mA	Vcc=5V
Stand-by mode current	Is	TYP 200 μ A	Vcc=5V
High level output voltage	VOH	MIN 2.8V	Vcc=5V
Low level output voltage	VOL	MAX 0.6V	Vcc=5V, IOL=0.4mA
Output pulse width	T1	115ns-200ns	Transmitting pulse width 125ns
Maximum reception distance	L	1 m	Radiant intensity 100mW/sr,±15°
Operating temperature	Topr	-10~+70°C	—

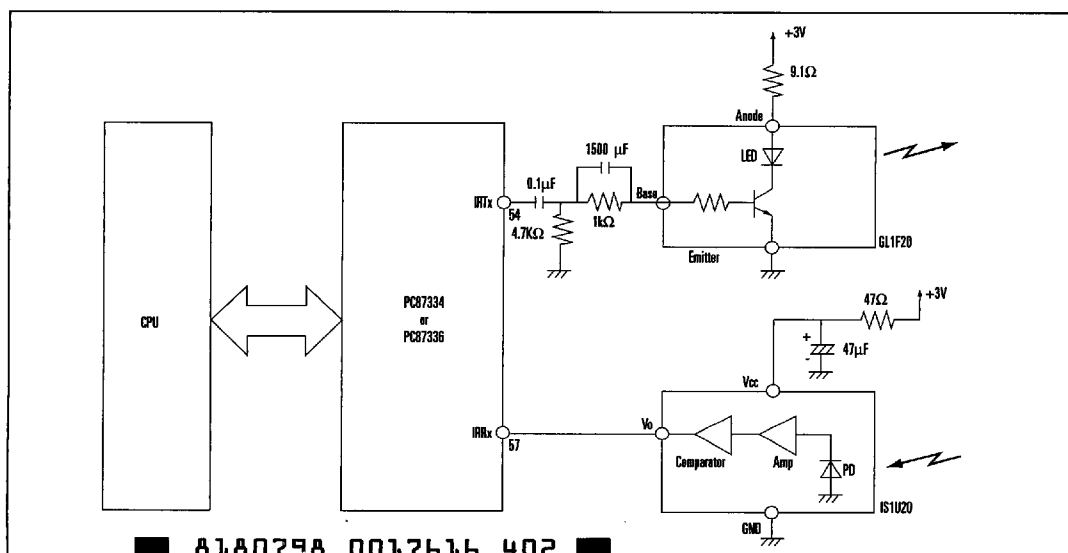
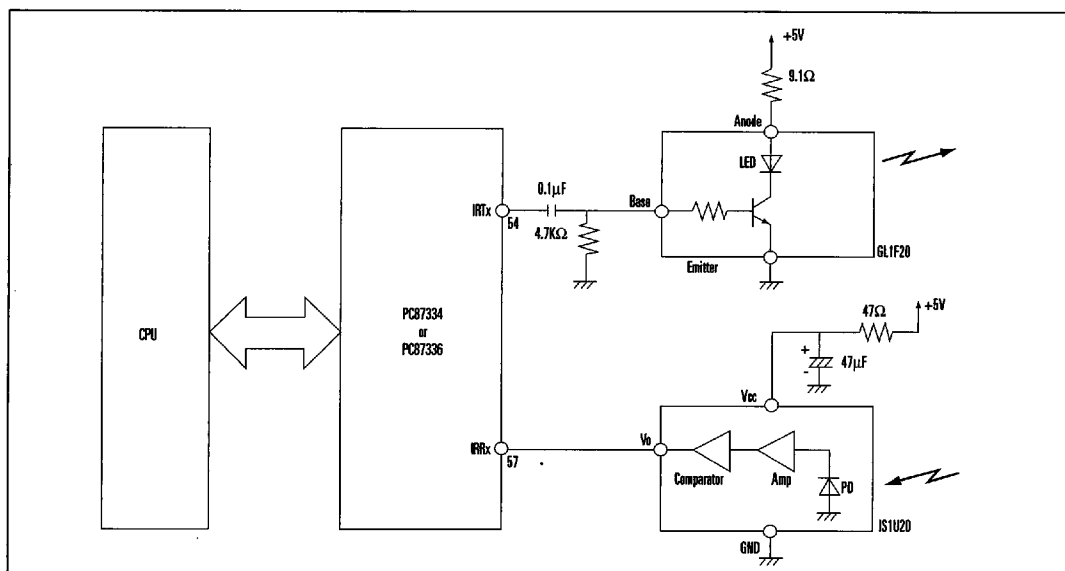


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IrDA1.1

Method	IrDA1.1	
Date rate	1.15Mbps	4Mbps
Distance	- 1m	- 1m
Description		

EXAMPLE OF APPLICATION WITH NATIONAL SEMICONDUCTOR PC87334/PC87336 SUPER I/O



8180798 0017616 402

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