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## SHARP

Under development New product

Constant

current circuit

### GP2W0112YP

### **IrDA Transceiver Module**

IrDA Transceiver Module (for IrDA 1.2 Low Power Use Only)

### ■ Feature

- (1) Exclusive for use in IrDA 1.2 Low Power
- (2) Low voltage operation type (Operating voltage: 1.7 to 2.5 V)
- (3) Compact package with integrated transmitter and receiver (7.9 x 2.85 x 2.15h mm)
- (4) 3-state output type
- (5) Separate power supplies for optical receiver(Vcc) and transmitter(VLEDA)
- (6) Low dissipation current (Dissipation current: TYP. 90µA)
- (7) Dissipation current is low due to a shutdown function (Dissipation current at shut-down:
  - TYP:0.001µA)

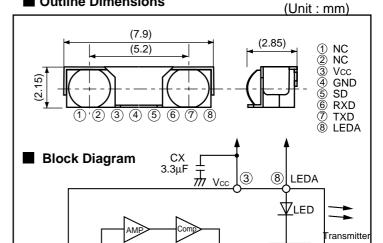
(8) Built-in constant-current LED circuit

## (TYP. 32mA)

### Applications

- (1) Cellular phone, PHS
- (2) Personal information tools

#### Outline Dimensions



IrDA 1.2 Low Power:

Receiver

With this standard, the delay time has been reduced from 10ms to 0.5ms in order to decrease the transmission distance for IrDA 1.0 from 1m to 20cm and to transmit audio signals.

RXD

6

IrDA: Stands for Infrared Data Association. Industrial group name for standardizing infrared communication specifications.

### **Specifications**

Parameter	Symbol	Specifications			l lmi4	O = == =!!#: = == =
		MIN.	TYP.	MAX.	Unit	Conditions
Maximum communication distance	L	0.2	-	-	m	*1
Operating supply voltage	Vcc	1.7	-	2.5	V	-
	VLEDA	2.0	-	6.0	V	-
Dissipation current	Icc	-	90	120	μΑ	Vcc=1.8V
Dissipation current at shut-down	Icc-s	-	0.001	0.1	μΑ	Vcc=1.8V
High level output voltage	V <sub>OH1</sub>	Vcc-0.4	-	-	V	-
Low level output voltage	Vol1	-	-	0.4	V	-
Delay time	-	-	-	0.5	ms	-
Radiant intensity	ΙE	3.6	-	-	mW/sr	Vcc=1.8V
LED peak current	ILED	-	32	-	mA	-
Peak wavelength	λР	850	870	900	nm	-
Operating temperature	Topr	-20	-	85	°C	-

\*1 : Using standard transceiver (Light-emission intensity: 3.6mW/sr,Light-detection sensitivity 9µW/cm²)

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  - Telecommunication equipment [terminal]
  - Test and measurement equipment
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  - Consumer electronics
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  - Traffic signals
  - Gas leakage sensor breakers
  - Alarm equipment
  - Various safety devices, etc.
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  - Telecommunication equipment [trunk lines]
  - Nuclear power control equipment
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