

Under development	●
New product	

IS1610

OPIC Light Detector

OPIC Light Detector for 8X Speed CD-ROM Drive

■ General Description

SHARP's **IS1610** is OPIC light detector for RF signal detection which is used for pick-up in CD-ROM drive. It has realized high speed response and high noise resistance characteristics due to the integration of photodiode and amp.

■ Features

- (1) OPIC light detector for RF signal detection
(Integrated 6-division PIN photodiode and amplifier circuit onto a single chip)
- (2) High speed response
(Response frequency; MIN. 12MHz(-3dB))
- (3) Compact and thin package
(Dimensions : 4.0 X 5.0 X 1.5mm)
- (4) Possible to supply custom-made detecting pattern
- (5) Pair use with SHARP's laser diode is recommended.

Laser diode: **LT022LS/LT022PS/
LT022MS/LT022TS**

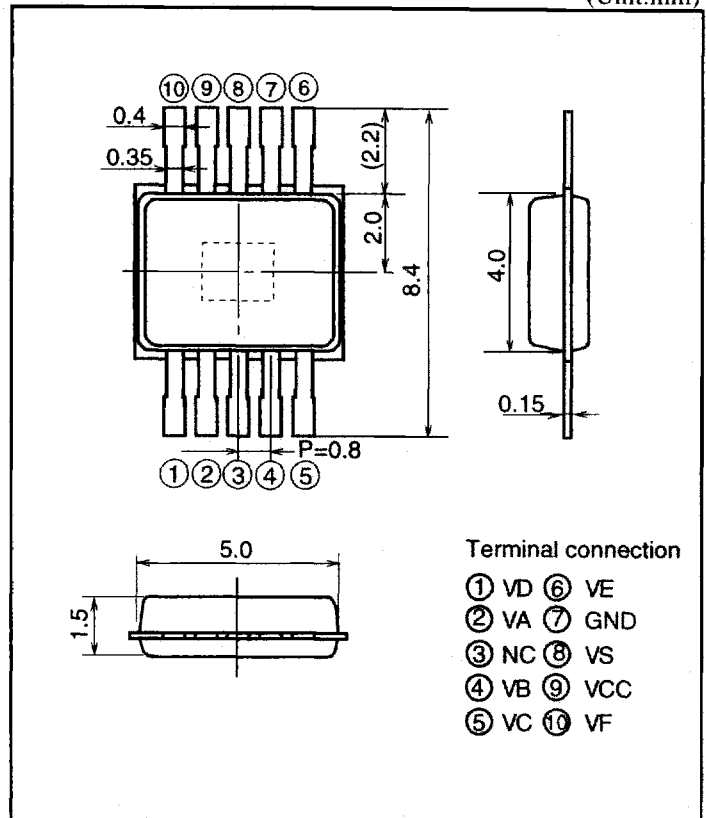
■ Application

- (1) CD-ROM drive(8X speed)

***"OPIC" (Optical IC) is a trademark of the SHARP Corporation.
An OPIC consists of a light-detecting element and signal-processing circuit integrated onto a single chip.

■ Outline Dimensions

(Unit:mm)



■ Specifications

(Ta=25°C)

Parameter	Symbol	Ratings	Conditions
Supply voltage	Vcc	4.5 to 5.5V	-
Extremes of off-set voltage	ΔV_{od}	MAX $\pm 15mW$	-
Sensitivity	Rp	TYP 33mV/ μW	$\lambda=780nm$
Response frequency	fc	MIN 12MHz	-3dB
Output noise level	Vn	TYP -76dBm	f=6MHz, BW=30kHz
Operating temperature	Topr	-20 to +70°C	-

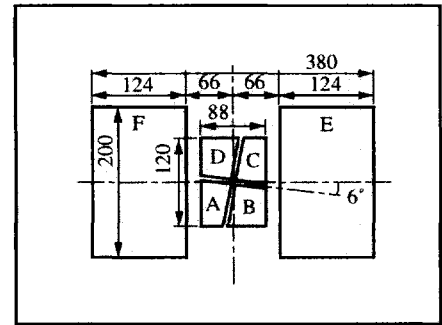
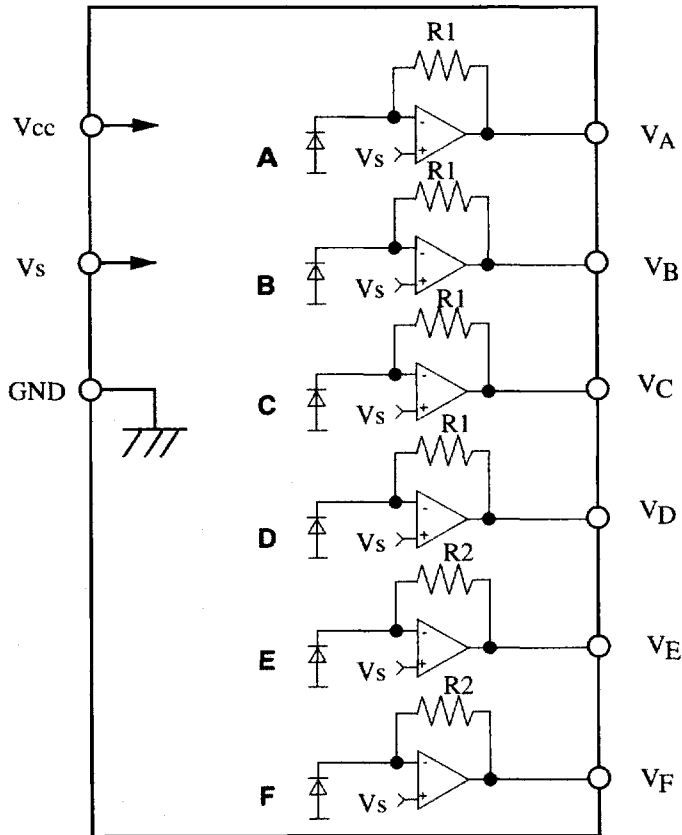
• In the absence of device specification sheets, SHARP takes no responsibility for any defects that may occur in equipment using any SHARP devices shown in catalogs, data books, etc. Contact SHARP in order to obtain the latest device specification sheets before using any SHARP device.

• Specifications are subject to change without notice for improvement.

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Internal Block Diagram / Pattern of Detecting Portion

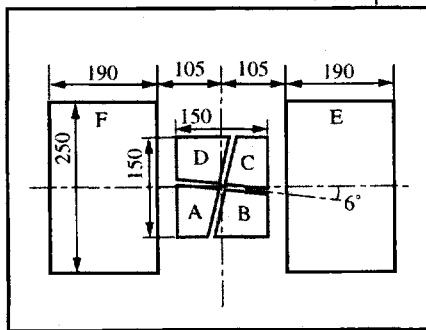


Other Pattern Example of Detecting Portion

It is possible to supply custom-made patterns.

IS1614

Unit : μm



IS1617

Unit : μm

