

GA103T8R1MZ

OPIC Light Detector

* OPIC Light Detector for 60× Speed Writing CD-R/RW, 12× Speed Reading DVD-ROM

Features

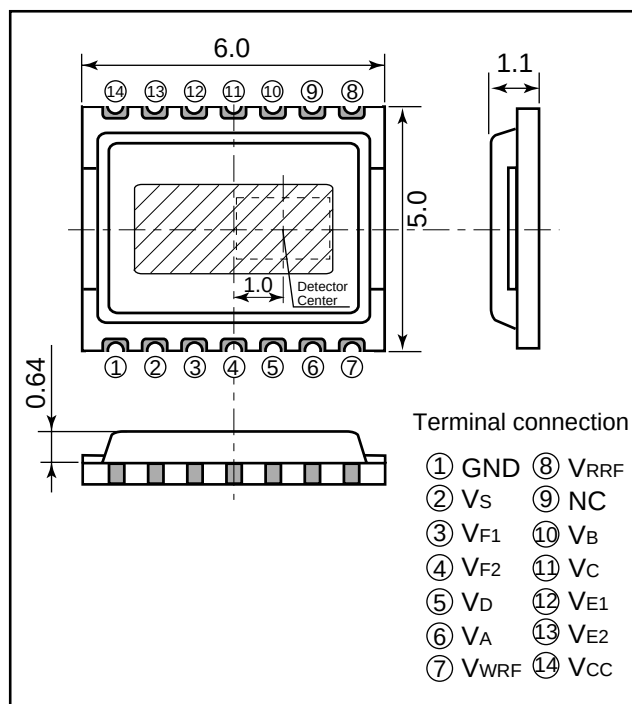
- (1) OPIC light detector with built-in RF amplifier
(Integrates 8-division PIN photodiode and Amp. IC onto a single chip)
CD-R : 60× speed writing
CD-ROM : 60× speed reading
DVD-ROM: 12× speed reading
- (2) Built-in bypass capacitor for power supply
- (3) Can read various discs such as CD-ROM, CD-R/RW, DVD-ROM, DVD-RAM/R/RW, DVD+R/RW
- (4) Surface mount-leadless package
(Package dimensions: 5.0 × 6.0 × 1.1 mm)
- (5) Applicable for reflow

Applications

- (1) CD-R/RW drives
- (2) DVD-R/RW drives
- (3) DVD+R/RW drives

Outline Dimensions

(Unit:mm)



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

Specifications

(λ=780nm, Ta=25°C)

Parameter	Symbol	Characteristics	Condition
Supply voltage	V _{CC}	4.5 to 5.5 V	-
Output off-set voltage	V _{od}	± 20 mV	V _A ~ V _D
Sensitivity1	RP1	TYP. 6.2 mV/μW	V _A ~ V _D
Sensitivity2	RP2	TYP. 12.8 mV/μW	VRRF
Sensitivity3	RP3	TYP. 0.52 mV/μW	VWRF
Response frequency	f _c	MIN. 60 MHz	VRRF, -3 dB
Output noise level	V _n	TYP. - 80 dBm	VRRF, f=36 MHz, BW=30 kHz
Settling time	T _{set}	MAX. 11 ns	V _A ~ V _D , Output 1.25 V to 25 mV
Operating temperature	T _{opr}	- 20 to + 70°C	-

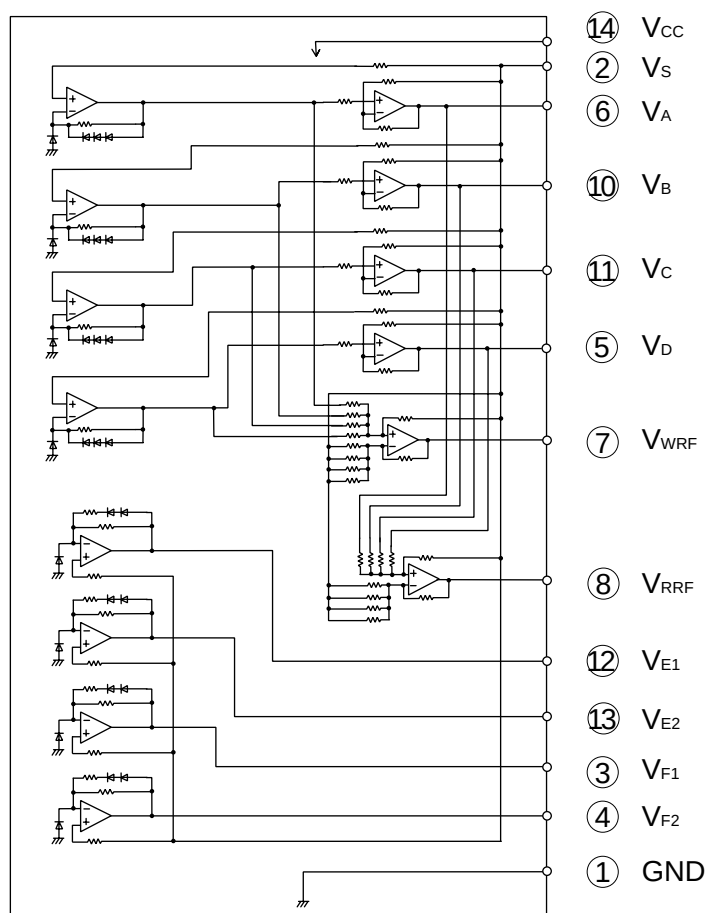
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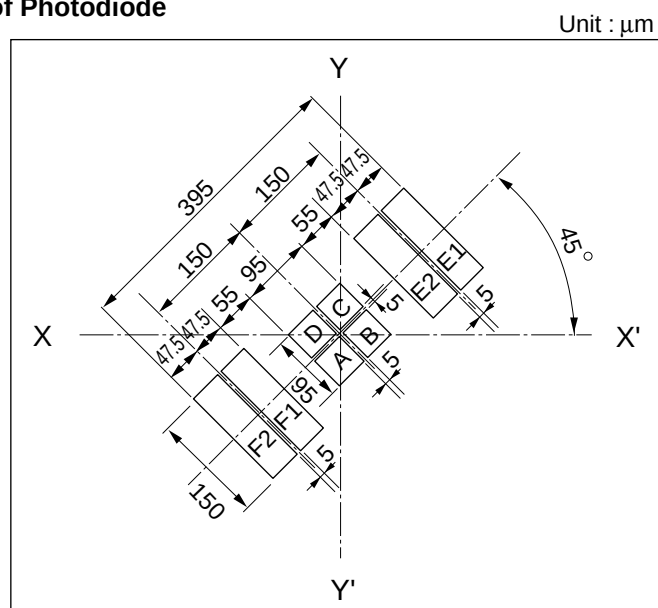
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Internal Block Diagram



■ Detecting Pattern of Photodiode



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 - Alarm equipment
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