SHARP

Under development New product

GP1FA511TZ/GP1FA511RZ Fiber Optic Trasmitter/Receiver

Shutter System Optic Transmitter/Receiver

Features

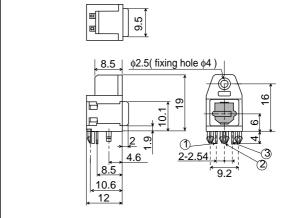
- (1)Shutter system unnecessary to remove the protection cap
- (2)Uni-directional data transmission using plastic fiber
- (3)The optical receiver can be directly connectable the TTL, due to the use of *OPIC.
- * "OPIC" (Optical IC) is a trademark of the SHARP Corporation. An OPIC consists of a light-detecting element and signal-processing circuit integrated onto a single chip.
- ** Sharp's GP1C331/GP1C331A/GP1C335 is recommended for optical fiber cable.

Applications

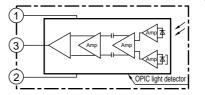
- (1) DVD players
- (2) CD players
- (3) MD players

Outline Dimensions

(Unit: mm)



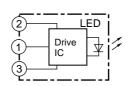
Receiver side internal connection(GP1FA511RZ)



- 1 Vcc
- 2 GND

Vout

Transmitting side internal connection(GP1FA511TZ)



- 1 Vin
- 2 Vcc
- (3) GND

Specifications

 $(Ta=25^{\circ}C)$

Parameter	Symbol	GP1FA511TZ(transmitter)	GP1FA511RZ(receiver)
Supply voltage	Vcc	4.75 to 5.25 V	
Supply current	Icc	MAX. 10 mA	MAX. 40 mA
Output optical power couple into fiber	Pc	MIN. –21 dBm	ſ
Receiver input optical power level	Pc	-	MIN. –24 dBm
Jitter	Δtj	TYP.1ns	
Operating transfer rate	T	MAX. 8 Mbps (NRZ signal,duty50%)	
Operating temperature	Topr	−20 to +70°C	

As of September, 2001

(Notice)

- In the absence of confirmation by 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. (Internet)
- Data for Sharp's optoelectronic/power devices is provided on internet. (Address http://sharp-world.com/ecg/)

NOTICE

- The circuit application examples in this publication are provided to explain representative applications of SHARP
 devices and are not intended to guarantee any circuit design or license any intellectual property rights. SHARP takes
 no responsibility for any problems related to any intellectual property right of a third party resulting from the use of
 SHARP's devices.
- Contact SHARP in order to obtain the latest device specification sheets before using any SHARP device. SHARP
 reserves the right to make changes in the specifications, characteristics, data, materials, structure, and other contents
 described herein at any time without notice in order to improve design or reliability. Manufacturing locations are
 also subject to change without notice.
- Observe the following points when using any devices in this publication. SHARP takes no responsibility for damage
 caused by improper use of the devices which does not meet the conditions and absolute maximum ratings to be used
 specified in the relevant specification sheet nor meet the following conditions:
 - (i) The devices in this publication are designed for use in general electronic equipment designs such as:
 - --- Personal computers
 - --- Office automation equipment
 - --- Telecommunication equipment [terminal]
 - --- Test and measurement equipment
 - --- Industrial control
 - --- Audio visual equipment
 - --- Consumer electronics
 - (ii) Measures such as fail-safe function and redundant design should be taken to ensure reliability and safety when SHARP devices are used for or in connection with equipment that requires higher reliability such as:
 - --- Transportation control and safety equipment (i.e., aircraft, trains, automobiles, etc.)
 - --- Traffic signals
 - --- Gas leakage sensor breakers
 - --- Alarm equipment
 - --- Various safety devices, etc.
 - (iii)SHARP devices shall not be used for or in connection with equipment that requires an extremely high level of reliability and safety such as:
 - --- Space applications
 - --- Telecommunication equipment [trunk lines]
 - --- Nuclear power control equipment
 - --- Medical and other life support equipment (e.g., scuba).
- Contact a SHARP representative in advance when intending to use SHARP devices for any "specific" applications
 other than those recommended by SHARP or when it is unclear which category mentioned above controls the
 intended use.
- If the SHARP devices listed in this publication fall within the scope of strategic products described in the Foreign Exchange and Foreign Trade Control Law of Japan, it is necessary to obtain approval to export such SHARP devices.
- This publication is the proprietary product of SHARP and is copyrighted, with all rights reserved. Under the copyright laws, no part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, in whole or in part, without the express written permission of SHARP. Express written permission is also required before any use of this publication may be made by a third party.
- Contact and consult with a SHARP representative if there are any questions about the contents of this publication.