



IR Emitter and Detector Product Data Sheet LTDL-RX16P01B

Spec No.: DS50-2003-034

Effective Date: 09/27/2003

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

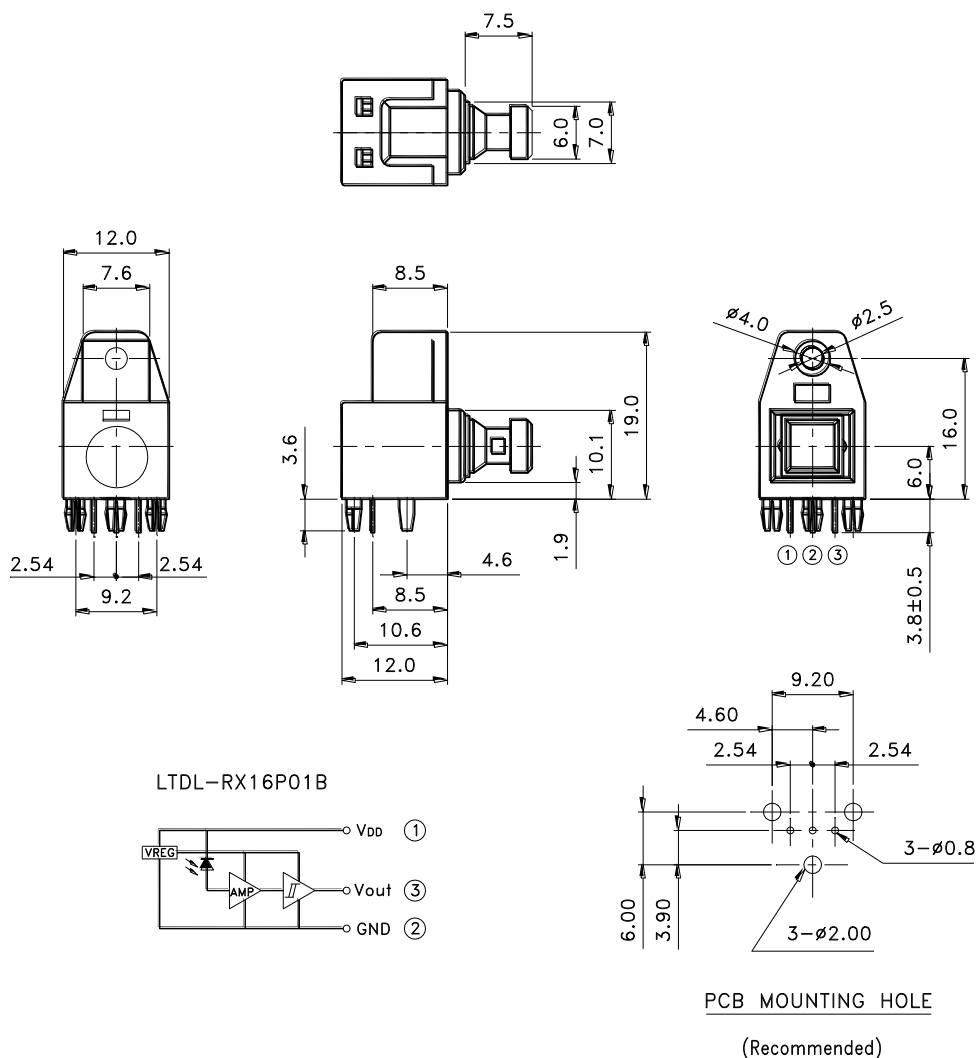
FEATURES

- * High speed transmission (16 Mbps , NRZ code)
- * TTL compatible
- * Same package as fiber optic transmitting module LTDL-TX12P01B

APPLICATIONS

- * Digital audio system
- * CD & DVD players

PACKAGE DIMENSIONS



NOTES:

1. All dimensions are in millimeters.
2. Tolerance is ± 0.3 mm unless otherwise noted.

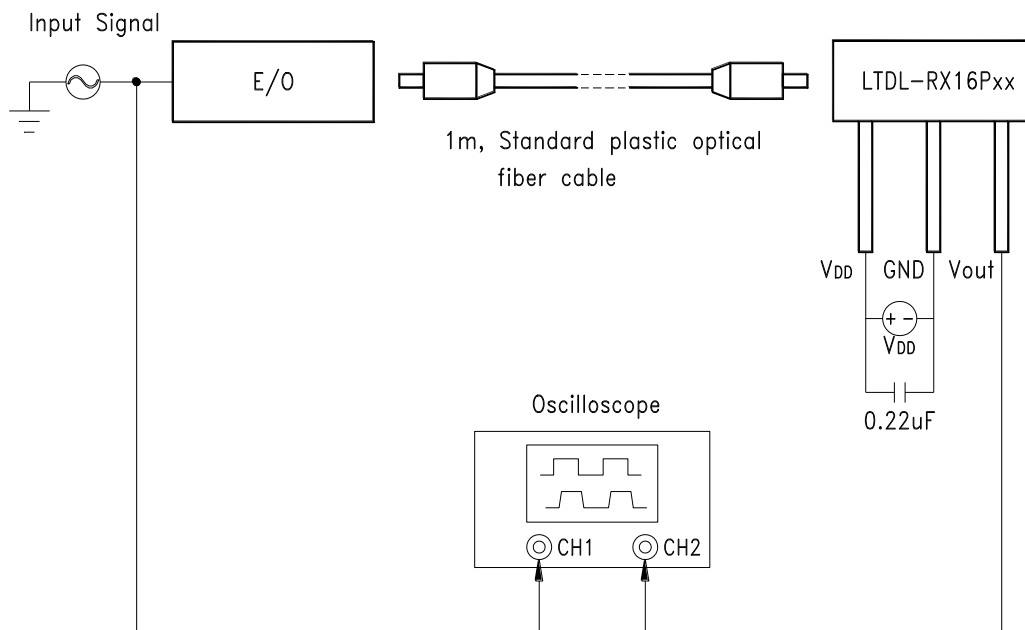
**ELECTRO—OPTICAL CHARACTERISTICS**

ABSOLUTE MAXIMUM RATINGS AT Ta=25°C

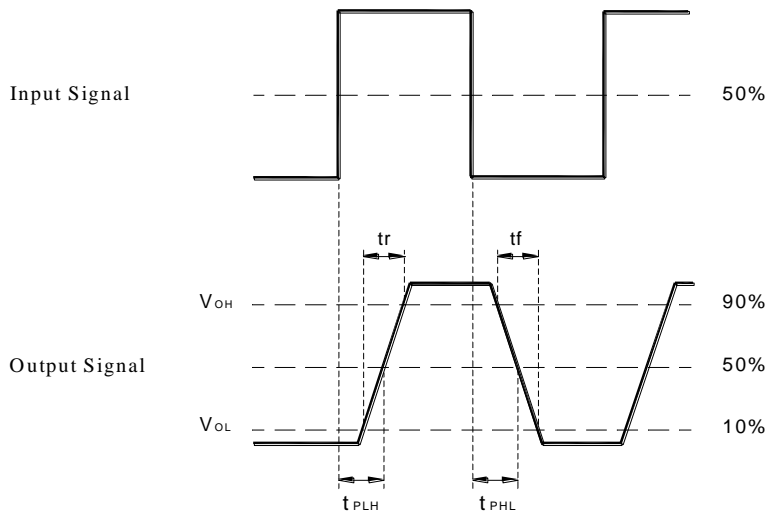
PARAMETER	MAXIMUM RATING	UNIT
Supply Voltage (V _{DD})	6.0	V
Output Voltage (V _O)	V _{DD} + 0.3	V
Operating Temperature Range	-20°C to + 70°C	
Storage Temperature Range	-30°C to + 80°C	
Lead Soldering Temperature [1.6mm(.063") From Body]	260°C for 5 Seconds	

ELECTRICAL OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Data Rate	T _s	0.1	—	16	Mbps	NRZ signal
Operating Voltage	V _{DD}	4.75	—	5.25	V	
Peak Sensitivity Wavelength	λ _{Peak}	—	650	—	nm	
Input Sensitivity	P _i	-24	—	-14	dBm	
Dissipation current	I _{DD}	2	7	10	mA	NRZ signal
High level output voltage	V _{OH}	2.4	4.8	—	V	Dc Light , I _{OH} = -20 μA
Low level output voltage	V _{OL}	—	0.2	0.4	V	Dark , I _{OL} = 0.6mA
“Low→High”propagation delay time	t _{PLH}	—	—	166	ns	*1
“High→Low”propagation delay time	t _{PHL}	—	—	166	ns	
Pulse width distortion	Δt _w	-18	—	+18	ns	
Jitter	Δt _j	—	1	5	ns	*1
Rise Time	t _r	—	8	20	ns	*1
Fall Time	t _f	—	8	20	ns	*1

***1 Setup of Measuring System**

Rise and Fall Times and Pulse Width Distortion



$$\text{Pulse Width Distortion} = \Delta t_w = t_{PHL} - t_{PLH}$$

Jitter

