



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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LITE-ON TECHNOLOGY CORPORATION

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DESCRIPTION

The LTDL-RA25A-T is a optical data link interface. The LTDL-RA25A-T consists of an optical sensor with an I / V amplifier, a Schmitt trigger, and a TTL output interface operating at data rates between 100K baud and 25 M baud.

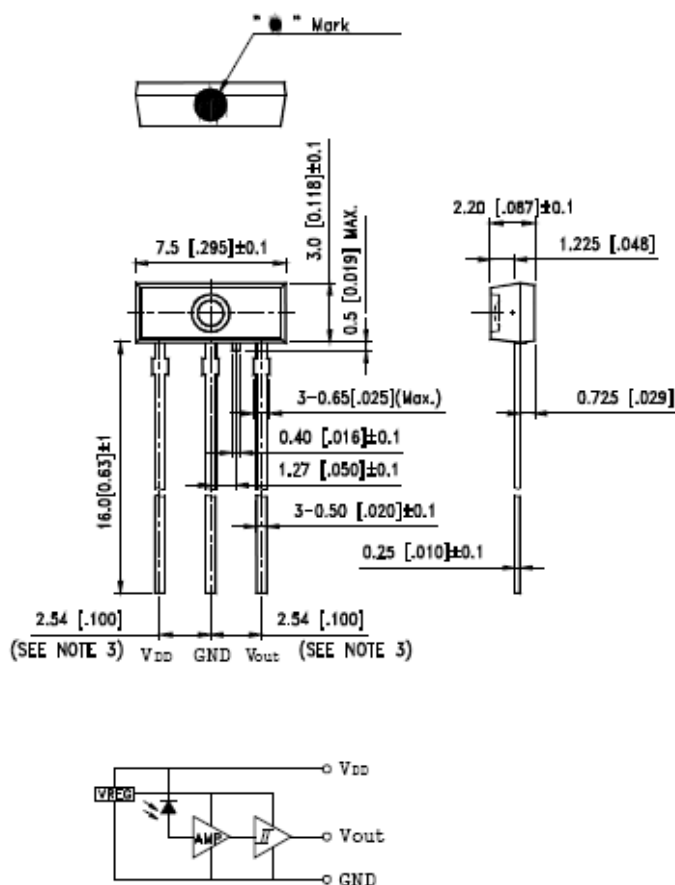
FEATURES

- * High PD sensitivity optimized for red light ($\lambda=650\text{nm}$)
- * Data Rates between 100Kbps and 25 Mbps
- * Low power consumption for extended battery life.
- * Built-in threshold control for improved noise margin

APPLICATIONS

- * Digital Optical Data-Link
- * Dolby AC-3 Digital Audio Interface

PACKAGE DIMENSIONS



NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.15\text{mm}$ (.006") unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. Mark color: Purple



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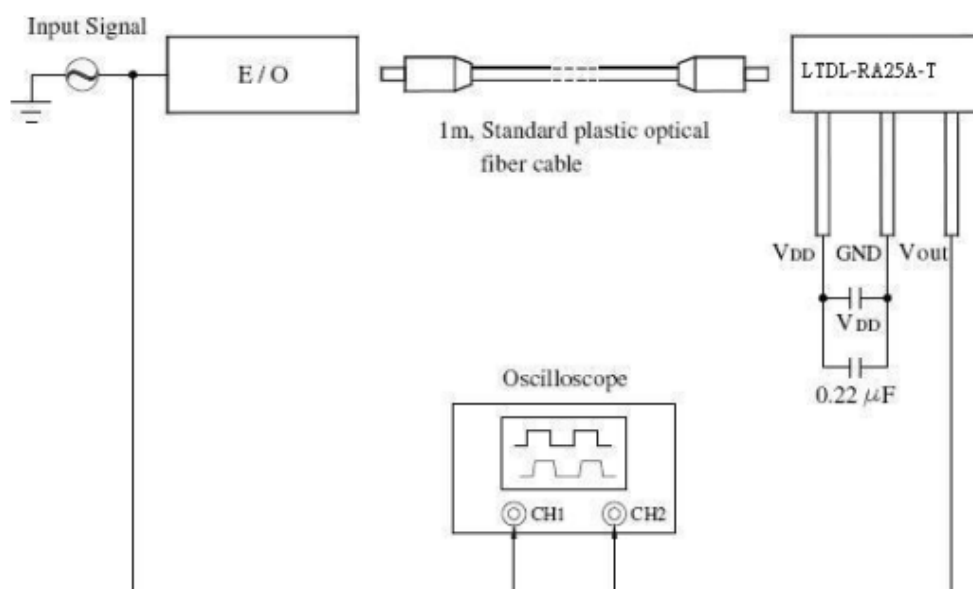
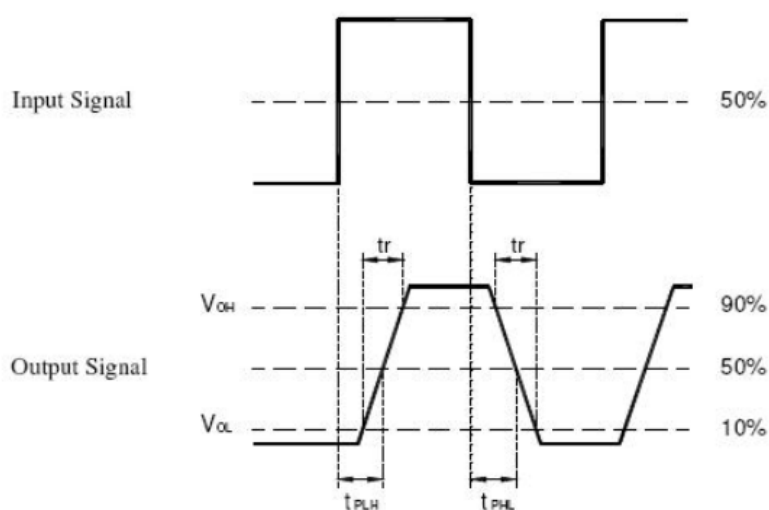
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ABSOLUTE MAXIMUM RATINGS AT T_A=25°C

PARAMETER	MAXIMUM RATING	UNIT
Supply Voltage (V _{DD})	5.25	V
Output Voltage (V _O)	V _{DD} +0.3	V
Operating Temperature Range	-20°C to + 70°C	
Storage Temperature Range	-30°C to + 70°C	
Lead Soldering Temperature [1.6mm(.063") From Body]	260°C ≤ 5 Seconds	

ELECTRICAL OPTICAL CHARACTERISTICS AT T_A=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Data Rate	T _S	100 K	-	25	Mbps	NRZ signal
Operating Voltage	V _{DD}	2.75	-	5.25	V	
Peak Emission Wavelength	λ _{Peak}	630	650	670	nm	
Input Sensitivity	P _i	-27	-	-14	dBm	
Dissipation current	I _{DD}	-	-	10	mA	
High level output voltage	V _{OH}	2.1	2.5	-	V	Dc Light , I _{OH} = -20 μA
Low level output voltage	V _{OL}	-	0.2	0.4	V	Dark , V _{OL} = 0.6mA
“Low→High”propagation delay time	t _{PLH}	-	-	100	ns	*1
“High→Low”propagation delay time	t _{PHL}	-	-	100	ns	
Pulse width distortion	Δt _w	-25		+25	ns	
Jitter	Δt _j	-	-	10	ns	*2
Rise Time	t _r	-	10	20	ns	*1
Fall Time	t _f	-	10	20	ns	*1

Setup of Measuring System

***1 Rise and Fall Time and Propagation Delays**


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



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*2 Jitter

