# **LITEON** LITE-ON TECHNOLOGY CORPORATION

Property of Lite-On Only

## **FEATURES**

- \* TTL INTERFACE COMPATIBLE
- \* HIGH SPEED OPTIC SIGNAL TRANSMISSION
- \* BUILT-IN LED DRIVER
- \* LOW POWER CONSUMPTION

*	V <sub>DD</sub>	Vin	LED	V <sub>DD</sub>	Vin	LED
	$2.7V\sim 5.25V$	HIGH	ON	FLOATING	HIGH	OFF
	$2.7V\sim 5.25V$	LOW	OFF	FLOATING	LOW	OFF
	$2.7V\sim 5.25V$	FLOATING	OFF			

\* WATER CLEAR COMPOUND PACKAGED.

## **PACKAGE DIMENSIONS**





4. Mark: Black color.

Part No. : LTDL-TA25B-T DATA SHEET (PRELIMINARY)

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## ABSOLUTE MAXIMUM RATINGS AT TA=25°C

	1				
PARAMETER	MAXIMUM RATING	UNIT			
Supply Voltage (VDD)	-0.5 ~ +7	V			
Input Voltage (VIN)	$\textbf{-0.5} \sim V_{DD} + 0.5$	V			
Power Dissipation (P)	120	mW			
Human Body Model ESD (HBM)	3К	V			
Machine Model ESD (MM)	300	V			
Operating Temperature Range	-25 °C to	-25 °C to + 70 °C			
Storage Temperature Range	-40 °C to	-40 °C to + 70 °C			
Lead Soldering Temperature [1.6mm(.063") From Body]	260°C for	260°C for 5 Seconds			

## ELECTRICAL OPTICAL CHARACTERISTICS AT TA=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Transmission Speed	Ts	_		25	Mbps	NRZ signal
Operating Voltage	VDD	2.75		5.25	V	
Peak Emission Wavelength	λ <sub>Peak</sub>	630	650	690	nm	
Fiber coupling light output	Pc	-21	-17	-15	dBm	*1
Dissipation current	Idd	_	5	12	mA	*2
High level input voltage	VIH	2		_	V	
Low level input voltage	VIL	_	_	0.8	V	
"Low→High"propagation delay time	<b>t</b> <sub>PLH</sub>	_	_	100	ns	
"High $\rightarrow$ Low" propagation delay time	<b>t</b> <sub>PHL</sub>	_	_	100	ns	*3
Pulse width distortion	$\Delta t_{\rm W}$	-15		15	ns	
Jitter	$\Delta t_j$	_	_	15	ns	

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### CAUTIONS

### 1. Storage

For the devices which are stored out of their original packag for more than eight hours, it is better to bake them at about  $100\pm 5^{\circ}$ C for at least 4 hours before assembling.

### 2. ESD (Electrostatic Discharge)

Static Electricity or power surge will damage the devices.

Suggestions to prevent ESD damage:

- Use of a conductive wrist band or anti-electrostatic glove when handling these devices.
- All devices, equipment, and machinery must be properly grounded.
- Work tables, storage racks, etc. should be properly grounded.
- Use ion blower to neutralize the static charge which might have built up on surface of the device's plastic lens as a result of friction between LEDs during storage and handling.

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