

SL-T4233PDB020-L395-E

PHOTO Diode

DATA SHEET

SPEC. NO. : SZ21110202
DATE : 2021/11/02
REV. : A/0

Approved By:

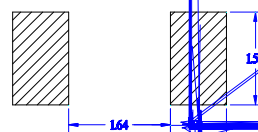
Checked By:

Prepared By:

Features

- Pb free product—RoHS compliant
- High Photo Sensitivity
- Reliable and rugged
- Long life – solid state reliability
- Sensitivity angle: 85°

Package Dimension



Recommended Soldering patterns

Part NO.	Chip Material	Lens Color
SL-T4233PDB020-L395-E	Silicon	Black

Notes:

- All dimensions are in millimeters.
- Tolerance is ± 0.10 mm unless otherwise noted.
- Specifications are subject to change without notice.

Absolute Maximum Ratings at Ta=25

Parameter	Maximum Rating	Unit
Power Dissipation	150	mW
Reverse Voltage	30	V
Electrostatic Discharge (HBM) *2		
Moisture Sensitivity Level *1	5a	
Operating Temperature	-40°C ~ +85°C	
Storage Temperature Range	-40°C ~ +100°C	
IR Reflow Temperature	260°C for 10 Seconds MAX.	

1. Storage and operating:

- (1). Storage requirements before vacuum bag opened: Temperature < 30°C, Humidity < 65% RH;
- (2). Check air leakage and vacuum bag damage before opened. If there is any issue found, check the humidity indicator card immediately after bag opened:
 - a. If color changes on “10% circle” of the humidity indicator card only and not the circles of 20% and above, components can be used without additional handling;
 - b. If color changes on both 10% and 20% circles but not the circles of 30% and above, components must be dehumidified according to the conditions of bullet (5);
 - c. If color changes on 10%, 20%, and 30% circle or above, the product should be returned to the supplier for high temperature dehumidification;
- (3). After bag opened, manual soldering or reflow process must follow the following requirements:
 - a. Complete soldering / reflow within 24 hours;
 - b. Requirements of working environment: Temperature < 30°C, Humidity < 60% RH;
- (4). If the working condition is outside (3)a or (3)b requirement, the components must be dehumidified according to the conditions of bullet (5);
- (5). Low temperature dehumidification: temperature 60±5°C, at least 24 hours;
- (6). Shelf life: 60 days. If it's over 60 days from the production date on the package label, the components must be dehumidified according to the condition of bullet (5). If customer is unable to dehumidify, return components to LIGHT for dehumidification.

2. Caution in ESD:

Static Electricity and surge damages the LED. It is recommend to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

Electrical Optical Characteristics at Ta=25

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
Reverse Light Current	I_L	21	26	---	μA	$V_R=5\text{V}$ $E_e=1\text{mW}/\text{cm}^2$ $p=940\text{nm}$
Reverse Dark Current	I_D	---	---	30	nA	$V_R=10\text{V}$ $E_e=0\text{mW}/\text{cm}^2$
Reverse Voltage	$V_{(R)}$	30	---	---	V	$I_R=100\mu\text{A}$
Forward Voltage	V_F	---	---	1.5	V	$I_F=20\text{mA}$
Viewing Angle(X)	$2_{1/2}$	75	85	95	Deg.	(Note 1)
Viewing Angle(Y)	$2_{1/2}$	25	35	45	Deg.	
Rise Time/ Fall Time	tr/tf	---	50	---	ns	$V_R=10\text{V}$ $RL=1\text{k}$
Total Capacitance	C_T	---	12	---	pF	$V_R=5\text{V}$ $E_e=0\text{mW}/\text{cm}^2$ $f=1.0\text{MHz}$

LIGHT

Reverse Light Current Bin Code ($V_R=5V$, $E_e=1mW/cm^2$, $p=940nm$)

BIN CODE	Min.(μA)	Max.(μA)
31	21	26
32	26	31
33	31	37

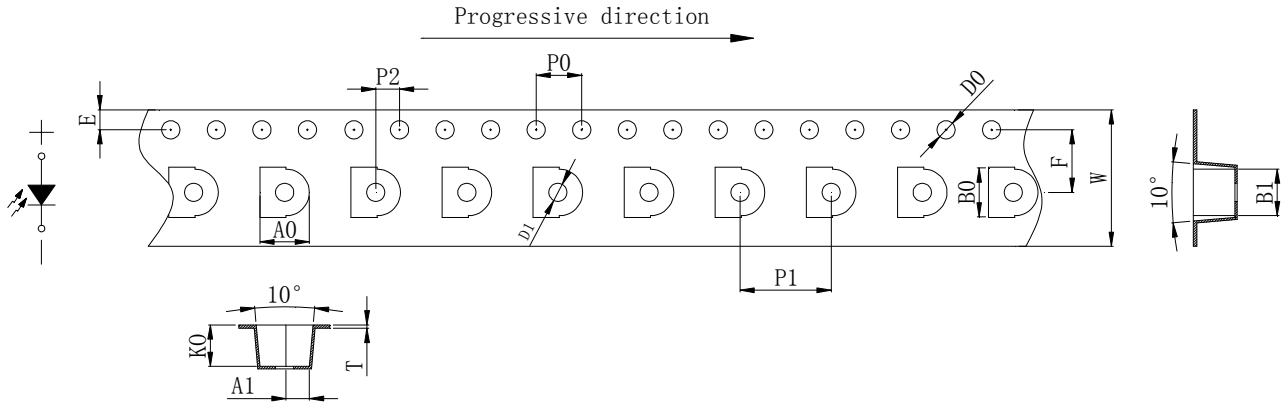
NOTE: The I_L guarantee should be added $\pm 15\%$ tolerance.

Label Explanation



Carrier Tape Specifications (Loaded Quantity: 2300pcs/reel)

ITEM	W	A0	A1	B0	B1	K0	E	F	D0	D1	P0	P1	P2	T
DIM	12.00	4.35	2.05	4.40	4.10	3.65	1.75	5.50	1.50	1.60	4.00	8.00	2.00	0.30
TOLE	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.05 -0.05



Note: Tolerance unless mentioned is ± 0.1 mm; Unit = mm

Moisture Resistant Packaging



