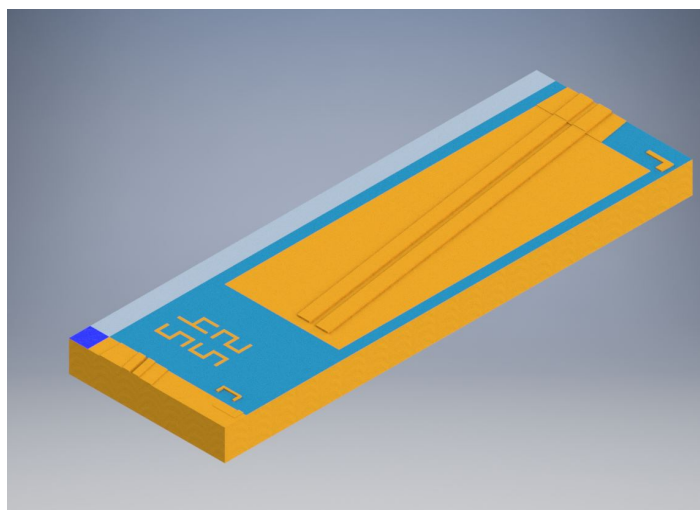


1310nm Low DOP SLD Chip



Description:

1310nm Superluminescent Diodes bridge the gap between Laser Diodes and Light Emitting Diodes. Like an LD, the SLD provides a high optical output power. LD-PD's SLD feature broadband spectrum characteristics, typically found only in LEDs, and a low coherence. Our SLD features a low coherence length having a high intensity at a narrow radiation angle. This makes the SLD much easier to couple to a fiber for a broad range of applications.

Features:

- Central wavelength 1290 ~ 1330nm
- Spontaneous emission light source, low ripple
- Wide spectral light source, spectral width > 40nm
- Low polarization extinction ratio

Optional:

- Fiber optic gyroscope
- Optical coherence tomography
- Optical testing instrument
- Optical fiber communication

E/O Characteristics:

Electrical/Optical Characteristics (Tsub=25°C, CW bias unless stated otherwise)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Centre wavelength	λ_c	1290	1310	1330	nm	100mA , 25°C
Operation Current	I _{op}	-	100	150	mA	100mA , 25°C
Optical Output Power	P _f	1.6	2.3	2.7	mW	100mA , 25°C
Spectral Width	$\Delta\lambda$	40	50	-	nm	100mA , 25°C
Spectral power variation (ripple)	R	-	0.1	0.2	dB	100mA , 25°C
Polarization dependent output(TE/TM)	-	-	-	1.0	dB	100mA , 25°C

Handling Procedures:

1. Suggested bonding condition

- Bonding temperature: 320°C
- Bonding force: 30 grams (not exceed 40 grams)
- Bonding force and temperature should be applied in a gradual fashion
- Bonding time: <= 10 seconds

2. Suggested burn-in conditions

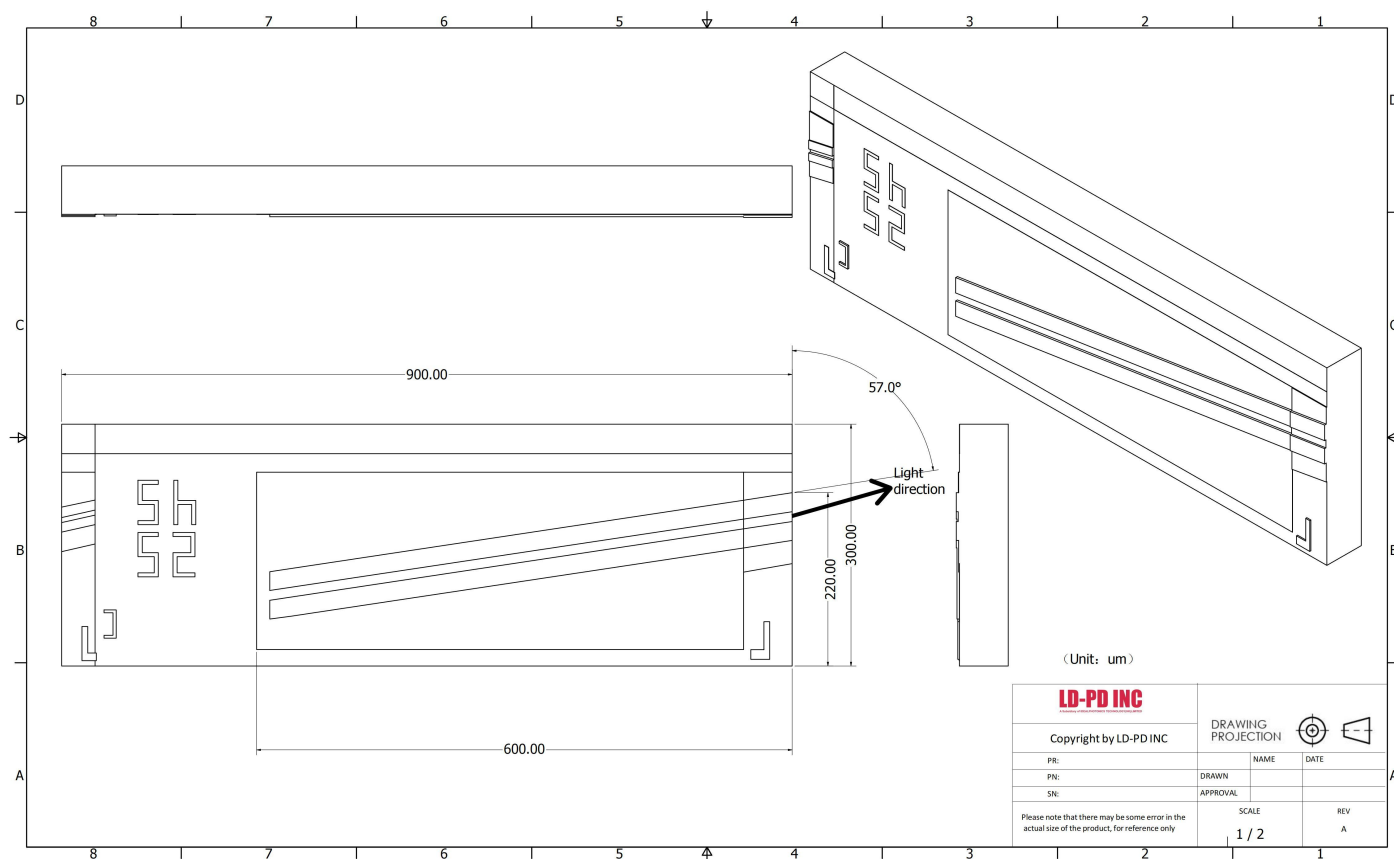
Conditions 1:

- Chip heatsink temperature: 100°C
- Current: 100mA
- Time: 24 hours
- Pass Criteria: BI 0hrs LIV1 ; BI 24hrs LIV2 Compare LIV2 to LIV1
- Delta I_{th} (T=25°C) ≤1mA and Delta P_f(T=25°C) ≤10%

Conditions 2:

- Chip heatsink temperature: 100°C
- Current: 100mA
- Time: 24 hours+48hrs
- Pass Criteria: BI 24hrs LIV1 ; BI 24hrs+48hrs LIV2 Compare LIV2 to LIV1
- Delta I_{th} (T=25°C) ≤0.7mA and Delta P_f(T=25°C) ≤10%

Package Size:



Parameter	Symbol	Units	Min	Max
Storage Temperature	TS	°C	-40	100
Forward current	IF	mA	-	150
Forward voltage	VF	V	-	+3
Reverse voltage	VR	V	-	+2
Maximum Chip-on-carrier Solder Temperature	-	°C	-	320

Note:

- 1.Stresses which exceed the absolute maximum ratings can cause permanent damage to the device.
- 2.These are only absolute stress ratings . Functional operation of the device is not implied at conditions exceeding those given in the operational sections of the data sheet.
- 3.Exposure to absolute maximum ratings for extended periods can affect device reliability adversely.

Ordering Info:

SLD-Chips- -A8 -W□□□□

: Output Power

A: 2mW

B: 3mW

: Wavelength Tolerance

1: $\pm 5\text{nm}$ 2: $\pm 10\text{nm}$

□□□□: Wavelength

1310: 1310nm

1315: 1315nm