



ROITHNER LASERTECHNIK

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SPECIFICATION

MODEL : SLD65018250S

SAMSUNG LASER DIODE

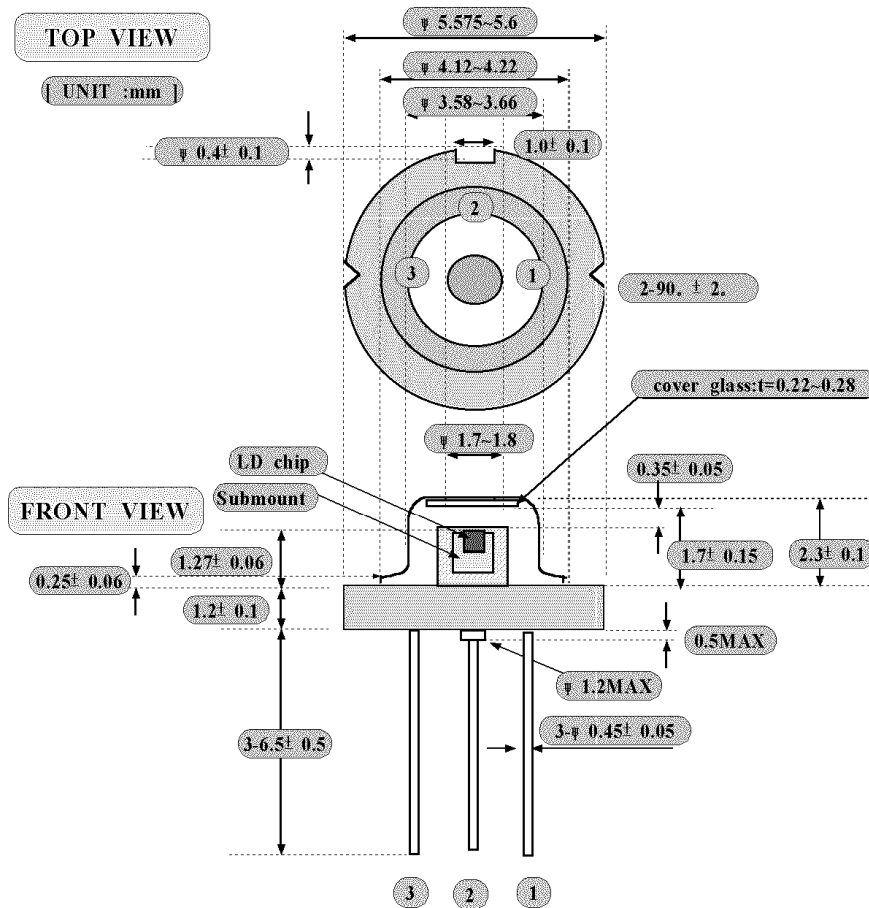
DRAWN BY	CHECKED BY	APPROVED BY

SAMSUNG ELECTRO-MECHANICS CO., LTD.

314. MAETAN3-DONG, PALDAL-KU,
SUWON-SI, KYUNGKI-DO, KOREA, 442-743



1. PACKAGE DIMENSIONS





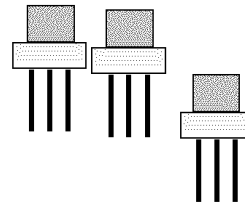
2. General Specifications

■ Description

SLD65018250S is a MOCVD grown 650nm band *InGaAlP* laser diode with quantum well structure. It's an attractive light source, with a typical light output power of 5mW for optoelectronic devices such as BAR CODE READER

■ Features

- Visible light output : $\lambda_p = 650\text{nm}$
- Optical power output : 5mW CW
- Built-in photo diode for monitoring laser output
- Package Type : TO-18 (No Glass Cap)



■ Absolute maximum ratings (Tc=25°C)

Items	Symbols	Values	Unit
Optical output power	Pmax	7	mW
Laser diode reverse voltage	V	2	V
Photo diode reverse voltage	V	30	V
Operating temperature	Topr	-10 ~ +50	°C
Storage temperature	Tstg	-40 ~ +85	°C

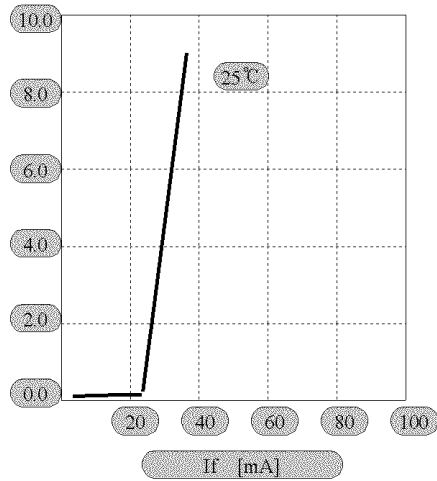
■ Optical and electrical characteristics (Tc=25°C)

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical output power	Po	-	5	-	mW	-
Threshold current	Ith	-	23	35	mA	-
Operating current	Iop	-	30	40	mA	Po=5mW
Operating voltage	Vop	-	2.2	2.6	V	Po=5mW
Lasing wavelength	λ_p	650	655	660	nm	Po=5mW
Beam divergence	$\theta_{ }$	6	9	10	deg	Po=5mW
	θ_{\perp}	30	35	40	deg	Po=5mW
Beam angle	$\Delta \theta_{ }$	-	-	± 2	deg	Po=5mW
	$\Delta \theta_{\perp}$	-	-	± 3	deg	Po=5mW
Monitor current	Im	0.1	0.2	0.5	mA	Po=5mW
Optical distance	$\Delta X, \Delta Y, \Delta Z$	-	-	± 60	μm	

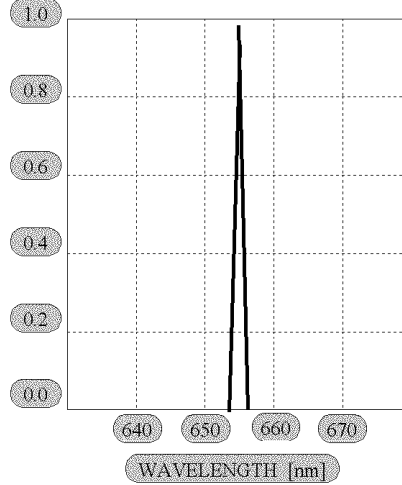


3. Optical Characteristics

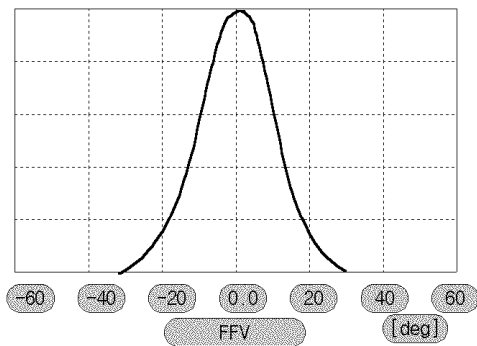
OPTICAL OUTPUT POWER vs CURRENT



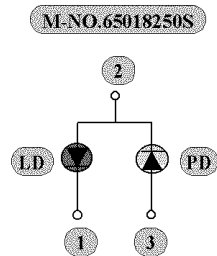
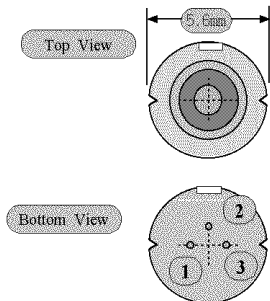
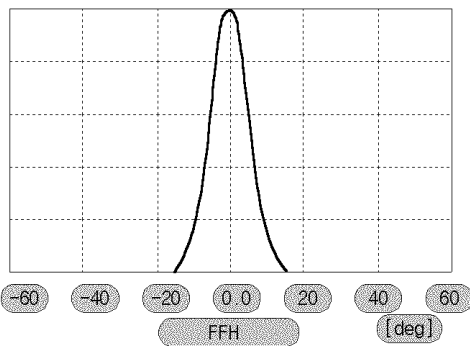
SPECTRUM



FAR-FIELD PATTERN FFV



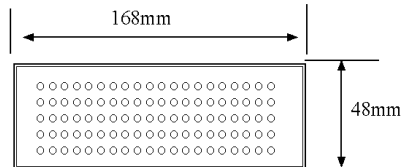
FAR-FIELD PATTERN FFH





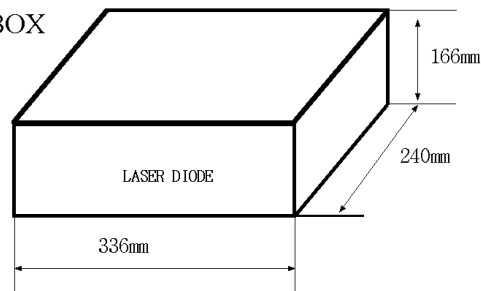
4. Packing

■ TRAY



100EA/TRAY

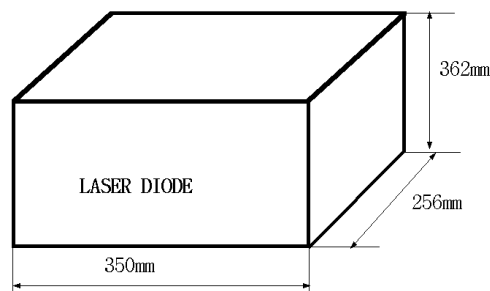
■ INSIDE BOX



1000EA/PACK
3CASE/PE
2PE/INSIDE BOX
6000EA/INSIDE BOX

● INSIDE BOX

■ OUTSIDE BOX



2INSIDE BOX/OUTSIDE BOX
12000EA/OUTSIDE BOX

● OUTSIDE BOX

Weight 5.1Kg/Box



5. LD PKG PROCESS

