



Technical Specification
of
1.3 μ m MQW-FP Laser Diode:

SLT1130 Series



1. General

SLT1130 Series are 1.3 μ m InGaAsP/InP MQW-FP laser diodes fabricated by OMVPE entirely. These diodes have low threshold current and high performance at high temperature.

A laser diode is mounted into a coaxial package integrated with an InGaAs monitor PD and an aspherical lens cap.

2. Package dimension and pin assignment

(See attached appendix)

3. Absolute maximum ratings (Tc=+25°C, unless otherwise noted.)

Parameter	Symbol	Ratings	Unit
Storage temperature	Tstg	-40~+100	°C
Operating case temperature	Top	-40~+85	°C
Peak optical output power	Po	10	mW
Forward current (LD)	IfL	150	mA
Reverse voltage (LD)	VrL	2	V
Reverse voltage (PD)	VrP	15	V
Reverse current (PD)	IrP	2	mA
Soldering temperature (<10sec.)	Stemp	260	°C

4. Electrical and optical characteristics (Po=5mW, Tc=+25°C, unless otherwise noted.)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold current	I _{th}	CW	—	8	15	mA
Optical output power	P _o	CW, I _f =I _{th} +20mA	4.0	5.0	—	mW
Operating voltage	V _f	CW	—	1.2	1.6	V
Central wavelength	λ _c	CW	1280	1310	1340	nm
Spectral width	Δλ	CW, RMS	—	2	5	nm
Rise time	t _r	I _b =I _{th} , 20-80%	—	0.1	0.2	nsec.
Fall time	t _f	I _b =I _{th} , 80-20%	—	0.15	0.25	nsec.
Monitor current	I _m	CW, V _{rP} =5V	200	—	—	μA
Monitor dark current	I _d	V _{rP} =5V	—	—	10	nA
Monitor capacitance	C	V _{rP} =5V, f=1MHz	—	—	10	pF

5. Ordering information

Part number	Pin assignment	Number of pin	Pin length
SLT1130	Type A	4	13.5±0.5mm
SLT1136	Type C	4	13.5±0.5mm

6. Precaution

- (1) Radiation emitted by laser devices can be dangerous to the eyes. Avoid eye or skin exposure to direct or scattered radiation.
- (2) The governmental approval is required to export this product to other countries. To dispose of this product, the appropriate procedure should be taken to prevent illegal exportation.
- (3) The laser diodes should be handled in the same manner as ordinary semiconductor devices to prevent the electro-static damages. For safe keeping and carrying, the modules should be packaged with ESD proof material. To assemble the modules on PCB, the workbench, the soldering iron and the human body should be grounded.
- (4) Please pay special attention to the atmosphere condition because the dew on the module may cause some electrical damages.
- (5) Under such a strong vibration environment as in automobile, the performance and reliability are not guaranteed.

Appendix

Part No.: SLT1130 / □□□□

(Customize code)

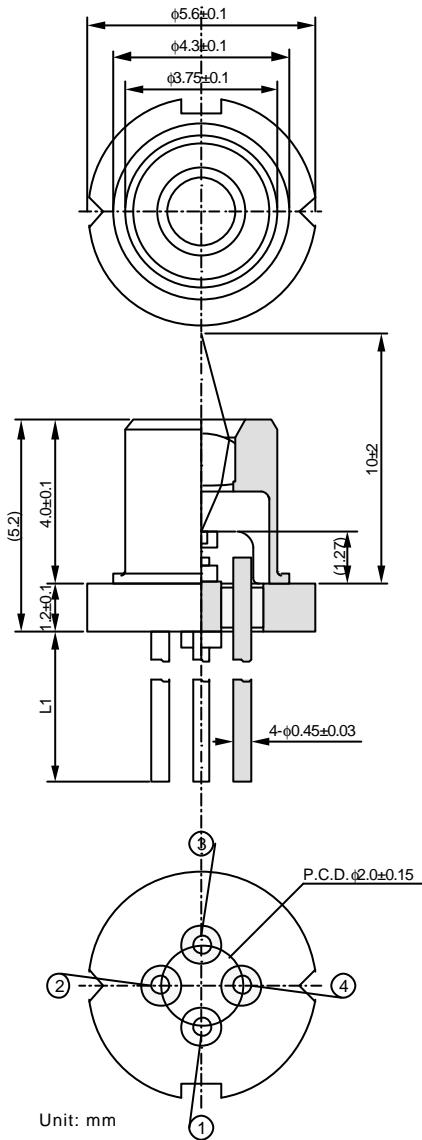
Code	Pin assignment	Pin length (L1)
0	Type A	13.5±0.5
1	Type B	13.5±0.5
6	Type C	13.5±0.5

Pin No.	Pin function
1	LD anode (CASE)
2	LD cathode
3	PD cathode
4	PD anode

Pin No.	Pin function
1	LD anode (CASE)
2	PD anode
3	PD cathode
4	D cathode

Pin No.	Pin function
1	(CASE) for Type C
2	LD cathode
3	PD anode
4	LD anode/PD cathode

Pin Assignment



7. For More Information

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Revision Record

Document No.	Date of issue	Description	Incorporated by	Checked by	Approved by
HUW9924064-01A	Aug./23/99	Initial issue.	T. Nakanishi	M. Yoshimura	T. Fujitani
HUW9924064-01B	Sep./30/03	Tr/Tf have been changed. Type C has been available.	T. Kounosu	M. Furumai	M. Yoshimura