



Technical Specification
of
1.3 μ m MQW-FP Laser Diode Module:
(Receptacle Module)

SLT2110-x Series

1. General

SLT2110-x Series are 1.3 μ m InGaAsP/InP MQW-FP laser diode modules designed for fiber optic communication systems. These modules are receptacle modules, and have low threshold current and high performance at high temperature. A laser diode is mounted into a coaxial package integrated with an InGaAs monitor PID, a single-mode fiber-stub and a receptacle.

2. Package dimension and pin assignment

(See attached appendix.)

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

Parameter	Symbol	Ratings	Unit
Storage temperature	Tstg	-40-+90	°C
Operating case temperature	Top	-40-+85	°C
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

($P_f=0.4\text{mW}$, $SMF(9.5/125\mu\text{m})$, $T_c=+25^\circ\text{C}$, unless otherwise noted.)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold current	I _{th}	CW	.	6	15	mA
		CW, $T_c=-40\sim+85^\circ\text{C}$	-	-	40	
Optical output power	P _f	CW, I _f =I _{th} +20mA	0.25	0.4	0.55	mW
		CW, I _f =I _{th} +20mA, $T_c=-40\sim+85^\circ\text{C}$	0.125	-	-	
Operating voltage	V _f	CW, $T_c=-40\sim+85^\circ\text{C}$	-	-	1.6	V
Slope efficiency	Se	CW, Average(I _{th} to I _{th} +20mA)	0.0125	-	-	mW/mA
Central wavelength	λ_c	CW	1280	1310	1340	nm
		CW, $T_c=-40\sim+85^\circ\text{C}$	1260	-	1360	
Spectral width	$\Delta\lambda$	CW, RMS, $T_c=-40\sim+85^\circ\text{C}$	-	2	5	nm
Tracking error	ΔP_f	I _m hold(@ P _f =0.4mW(25°C)) CW, $T_c=-40\sim+85^\circ\text{C}$	-1.5	-	1.5	dB
Rise time	t _r	I _b =I _{th} , 20-80%, $T_c=-40\sim+85^\circ\text{C}$	-	-	0.3	nsec
Fall time	t _f	I _b =I _{th} , 80-20%, $T_c=-40\sim+85^\circ\text{C}$	-	-	0.5	nsec
Extinction ratio	Er	10log(0.4mW/P _f (I _{th})) $T_c=-40\sim+85^\circ\text{C}$	10	-	-	dB
Monitor current	I _m	CW, V _{rP} =-5V	200	-	-	μA
		CW, V _{rP} =5V, $T_c=-40\sim+85^\circ\text{C}$	150	-	-	
Monitor dark current	I _d	V _{rP} =5V		1	10	nA
Monitor capacitance	C	V _{rP} =5V, f=1 MHz		-	10	pF
Connector repeatability	-	(*1)		±0.5	±1.0	dB

Note: *1. Measured with a SEI's master plug.

5. Ordering information

Part number	Pin assignment	Pin length	Receptacle type
SLT2110-C	Type A	13.5±0.5mm	SC
SLT2110-D			FC
SLT2116-C	Type C	13.5±0.5mm	SC
SLT2116-D			FC
SLT2117-C	Type D	13.5±0.5mm	SC
SLT2117-D			FC

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 modules 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.: SLT2110-□-□/□□□

Code	Receptacle type
C	SC
D	FC

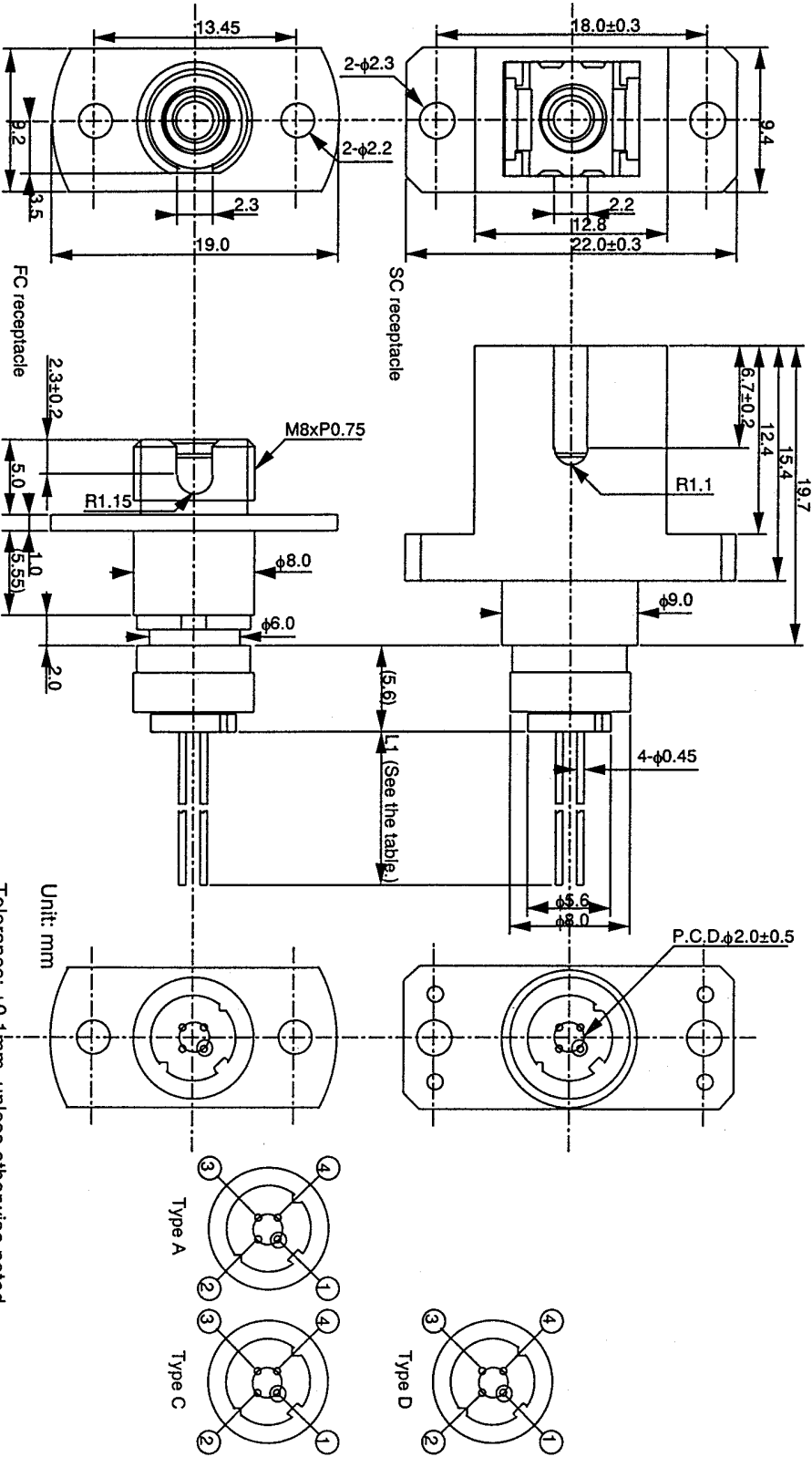
Code	Pin assignment	Pin length (L1)
0	Type A	13.5±0.5
6	Type C	13.5±0.5
7	Type D	13.5±0.5

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

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

Receptacle type

Pin assignment and pin length



Unit: mm
Tolerance: ±0.1mm, unless otherwise noted.

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7. For More Information

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