

Laser diode

L9279-14

TOSA type, 850 nm VCSEL, High-speed response: 2.5 Gbps



Features

- 850 nm VCSEL
- $\phi 1.25$ mm sleeve type TOSA (Transmitter Optical Sub-Assembly)
- High-speed response: 2.5 Gbps

Applications

- Optical fiber communications
- Gigabit Ethernet
- Fiber channels

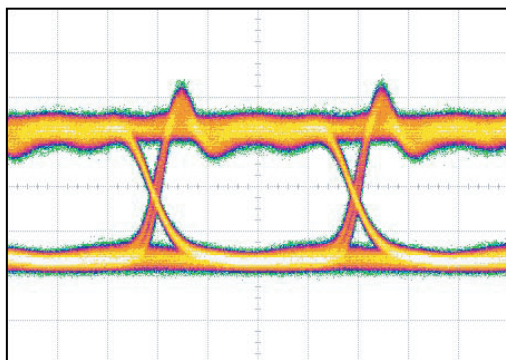
■ Absolute maximum ratings (Ta=25 °C)

Parameter	Symbol	Value	Unit
Optical power	Pf Max.	0.8	mW
Forward current	If Max.	10 (CW)	mA
Maximum reverse voltage	Vr Max.	5	V
Forward current (photodiode)	Ifm Max.	2	mA
Maximum reverse voltage (photodiode)	Vrm Max.	10	V
Operating temperature	Topr	0 to +70	°C
Storage temperature	Tstg	-40 to +85	°C

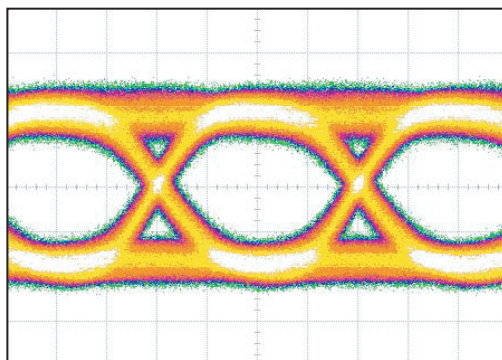
■ Electrical and optical characteristics [Ta=25 °C, If=Ith + 5 mA, GI fiber (50/125 μ m, NA=0.2), CW]

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward voltage	Vf		-	1.8	2.2	V
Threshold current	Ith		-	1.5	3	mA
Fiber end output	Pf		0.30	0.38	-	mW
Peak emission wavelength	λ_p		830	845	855	nm
Spectral half width	$\Delta\lambda$	RMS	-	0.4	0.85	nm
Rise/fall times	tr, tf	20 to 80 % Extinction ratio=10 dB	-	-	150	ps
Differential series resistance	Rs		-	50	-	Ω
Monitor current (photodiode)	Im	Vr=2 V	0.2	0.4	-	mA
Dark current (photodiode)	Id	Dark state, Vr=2 V	-	0.01	1	nA

Eye diagram

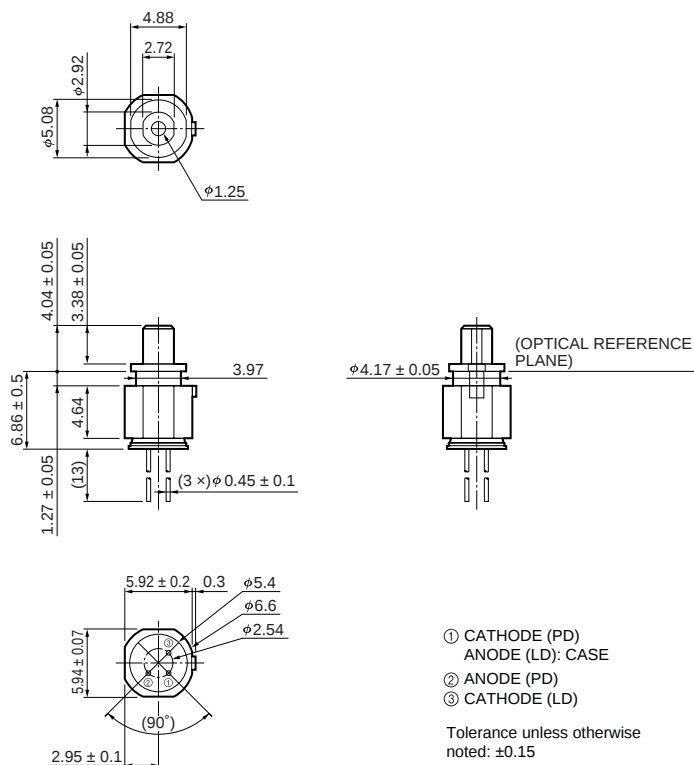


Bit rate=2.5 Gbps, NRZ, PN=31
Modulated current=5 mA, Extinction ratio=10 dB



Bit rate=2.5 Gbps, NRZ, PN=31
1.866 GHz, 4th order Bessel filter is used.

Dimensional outline (unit: mm)



KLEDA0080EB

HAMAMATSU

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