

TTL-3G13-301

2.5Gbps LC Connectorized 1310nm FP Laser Diode

FEATURES:

- Pre-aligned LC-type receptacle for optical fiber communication.
- Design for Small Form Factor transceivers.
- Low threshold current and low operating current.
- Support from DC to 2.5Gbps data rate operation.



ELECTRO-OPTICAL CHARACTERISTICS: ($T_A = 25^\circ\text{C}$, unless otherwise specified)

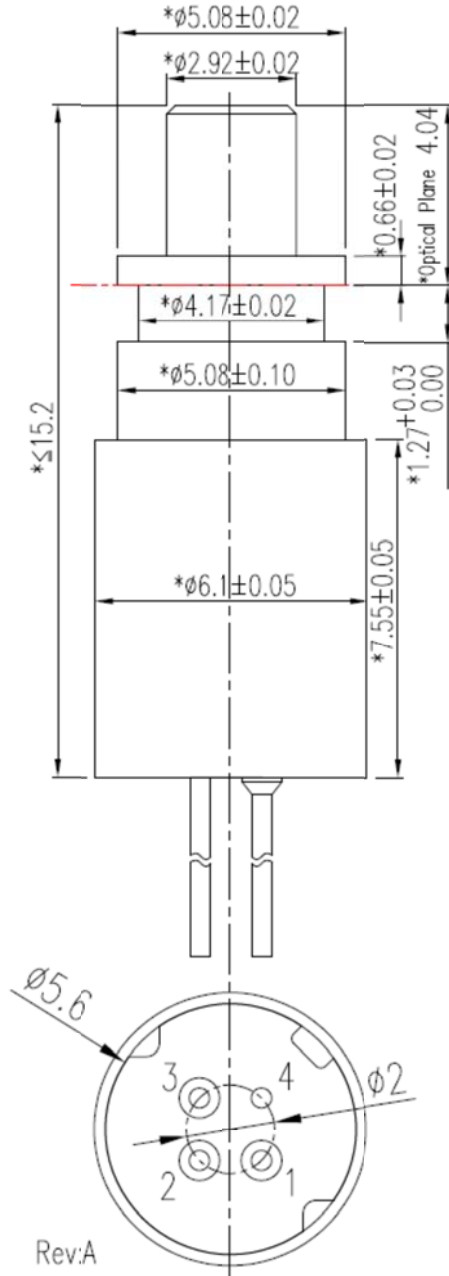
PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Threshold Current	I_{th}		10	15	mA	CW
Forward Voltage	V_F		1.1	1.6	V	CW, $I_F = I_{th} + 20\text{mA}$
Slope Efficiency	η	0.023		0.045	mW/mA	CW, $I_F = I_{th} + 20\text{mA}$
		0.015				$T_A = -40 \sim 85^\circ\text{C}$
Rise / Fall time(20%~80%)	t_r/t_f			150	ps	$I_F = I_{th} + 20\text{mA}$
Wavelength	λ_p	1290	1310	1330	nm	CW, $I_F = I_{th} + 20\text{mA}$
		1260		1355		CW, $T_A = -40 \sim 85^\circ\text{C}$
Spectral width(RMS)	$\Delta\lambda$			3	nm	CW, $I_F = I_{th} + 20\text{mA}$ (RMS, -20dB)
PD Monitor Current	I_M	100		800	μA	CW, $I_F = I_{th} + 20\text{mA}$, $V_R = 1\text{V}$
PD Dark Current	I_D			0.1	μA	$V_R = 5\text{V}$
PD Capacitance	C_M		3	10	pF	$V_R = 5\text{V}$, $f = 1\text{MHz}$
Tracking Error	TE	-1.5		1.5	dB	$I_M \text{ hold}@I_{th} + 20\text{mA}(25^\circ\text{C})$ $T_A = -40 \sim 85^\circ\text{C}$
Return Loss	RL	14			dB	

ABSOLUTE MAXIMUM RATINGS:

PARAMETERS	MIN	MAX	UNIT	TEST CONDITIONS
Storage Temperature	-40	85	$^\circ\text{C}$	
Operating Temperature	-40	85	$^\circ\text{C}$	
Lead Solder Temperature		260	$^\circ\text{C}$	10 seconds
LD Reverse Voltage		2	V	
PD Reverse Voltage		20	V	
PD Forward Current		2	mA	

OUTLINE DIMENSIONS:

- Unit: mm
- With "*" mark are key dimensions



Pinout:

Pin no.	TTL-3G13-301
	Function
1	LD Cathode
2	PD Anode
3	LD Anode / PD Cathode
4	Case

The FP Laser is a class 1 laser in the safety standard IEC60825-1:2014.

