

# TTL-3E12-300

## 1.25Gbps SC Connectorized 1310nm FP Laser Diode

### FEATURES:

- Pre-aligned SC type receptacle with fiber stub for optical fiber communication.
- Design for Small Form Factor transceivers.
- Low threshold current and low operating current.
- Support from DC to 1.25Gbps data rate operation.



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

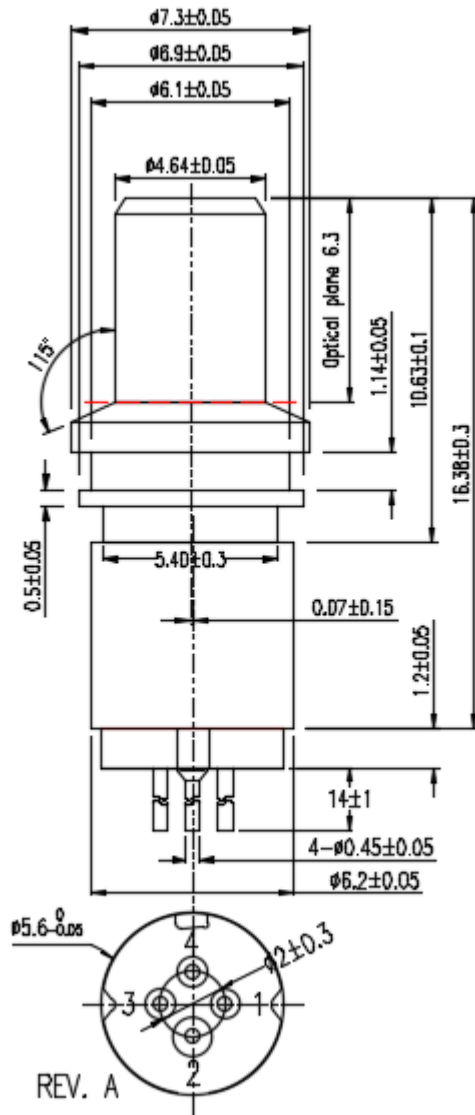
PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Threshold Current	$I_{th}$		10	15	mA	CW
Forward Voltage	$V_F$		1.1	1.6	V	CW, $I_F=I_{th}+20\text{mA}$
Slope Efficiency	$\eta$	0.02		0.04	mW/mA	CW, $I_F=I_{th}+20\text{mA}$
Rise / Fall time(20%~80%)	tr/tf			150	ps	$I_F=I_{th}+20\text{mA}$
Wavelength	$\lambda_p$	1290	1310	1330	nm	CW, $I_F=I_{th}+20\text{mA}$
Spectral width(RMS)	$\Delta\lambda$			3	nm	CW, $I_F=I_{th}+20\text{mA}$ (RMS, -20dB)
PD Monitor Current	$I_M$	100		800	$\mu\text{A}$	CW, $I_F=I_{th}+20\text{mA}$ , $V_R=1\text{V}$
PD Dark Current	$I_D$			0.1	$\mu\text{A}$	$V_R=5\text{V}$
PD Capacitance	$C_M$		3	10	pF	$V_R=5\text{V}$ , $f=1\text{MHz}$
Tracking Error	TE	-1.5		1.5	dB	$I_M$ hold @ $I_{th}+20\text{mA}$ ( $25^\circ\text{C}$ ) $T_A = -40\sim 85^\circ\text{C}$

### 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

**Pinout :**

Pin no.	TTL-3E12-300
	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.

