

TTF-3F16-301

6.25Gbps 1310nm FP Laser Diode

FEATURES:

- LC-type optical sub-module with flexible circuit attached.
- Design for Small Form Factor transceivers.
- Low threshold current and low operating current.
- Support from DC to 6.25Gbps data rate operation.



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

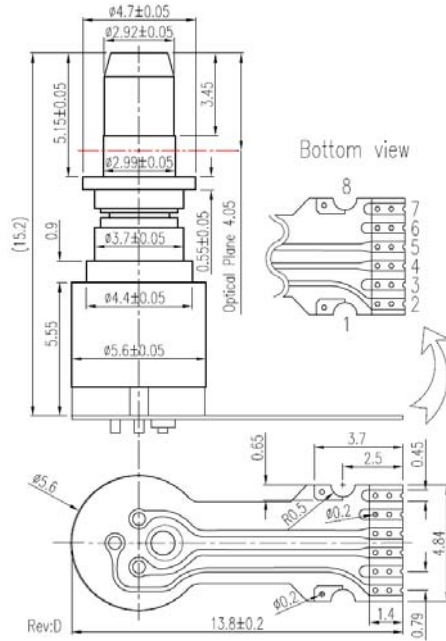
PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Threshold Current	I_{th}	6	10	15	mA	CW
Forward Voltage	V_F		1.3	1.5	V	CW, $I_F = I_{th} + 20\text{mA}$
Slope Efficiency	η	0.018		0.038	mW/mA	CW, $I_F = I_{th} + 20\text{mA}$
Rise / Fall time(20%~80%)	tr/ta		60		ps	6.25Gbps, $I_F = I_{th} + 20\text{mA}$
Wavelength	λ_p	1290	1310	1330	nm	CW, $I_F = I_{th} + 20\text{mA}$
		1262	1310	1358		$T_A = -40 \sim 85^\circ\text{C}$, $I_F = I_{th} + 20\text{mA}$
Spectral width(RMS)	$\Delta\lambda$		1	2	nm	CW, $I_F = I_{th} + 20\text{mA}$
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	$I_M \text{ hold}@I_F = I_{th} + 20\text{mA}(25^\circ\text{C})$, $T_A = -10 \sim 85^\circ\text{C}$

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
Flex Attach Temperature		370	$^\circ\text{C}$	10 seconds
LD Reverse Voltage		2	V	
PD Reverse Voltage		20	V	
PD Forward Current		2	mA	

OUTLINE DIMENSIONS:

• Unit: mm



Pinout:

Pin no.	TTF-3F16-301
	Function
1	Gnd
2	PD Cathode
3	Gnd
4	LD Cathode
5	LD Anode
6	Gnd
7	N. C.
8	Gnd