

TME-3F22-506

1310nm 2.5Gbps FP Laser Diode

FEATURES:

- Industry TO-56 package with 2.0(mm) ball lens cap
- 1310nm typical emission wavelength
- Data rate operation from DC to 2.5Gbps
- Common anode type
- Suitable for GEAPON 1000BASE-PX20-U applications



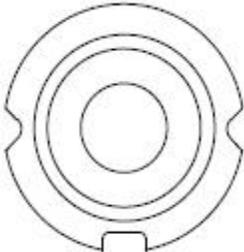
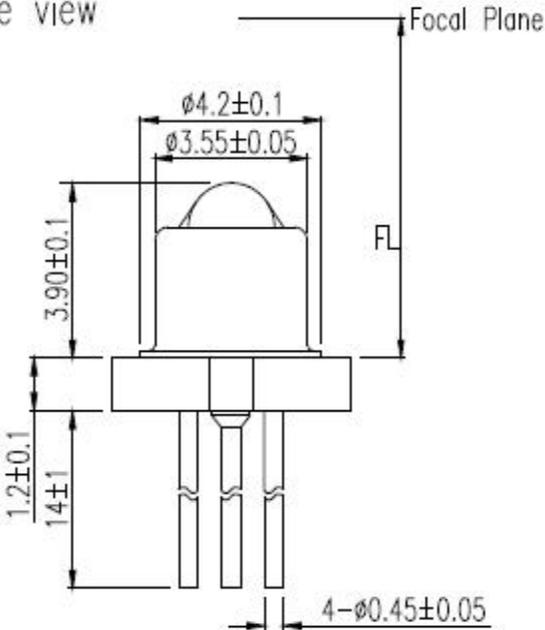
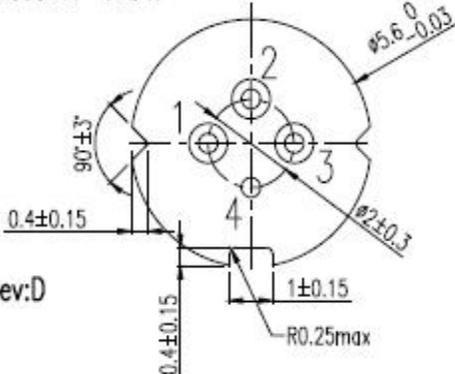
ELECTRO-OPTICAL CHARACTERISTICS : (Tc=25°C, unless otherwise stated)

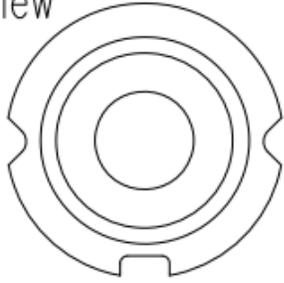
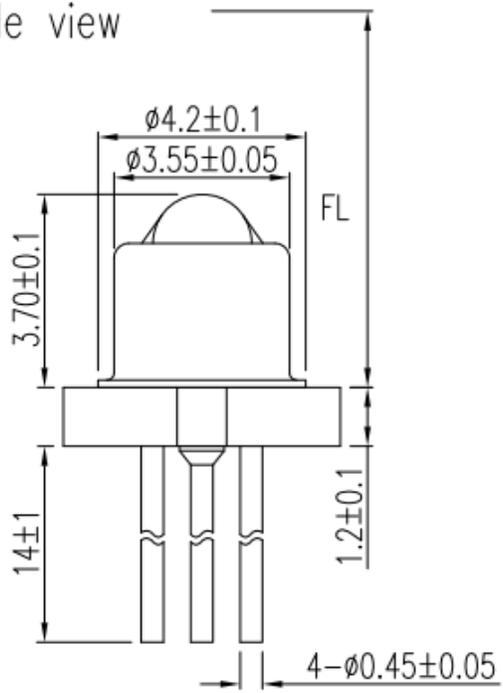
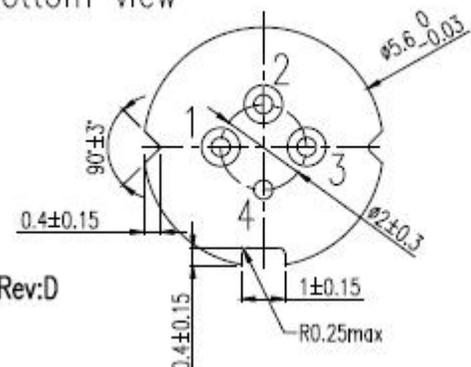
PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS	
Threshold Current	I _{th}		9	13	mA	CW	
			20	30		CW, Tc=85°C	
Operating Current	I _{op}			30	mA	CW, Po=5mW	
				50		CW, Po=5mW, Tc=85°C	
Operating Voltage	V _{op}		1.1	1.6	V	CW, Po=5mW, Tc=-40°C ~ 85°C	
Slope Efficiency	η		0.45		mW/mA	CW, Po=5mW	
			0.25			CW, Po=5mW, Tc=85°C	
Peak Wavelength	λ _p		1290	1310	1330	nm	CW, I _{op} =I _{th} +20(mA)
			1260	1340	1360		CW, I _{op} =I _{th} +20(mA), Tc=-40°C ~ 85°C
Beam Angle	θ//		-3		3	degree	I _{op} =I _{th} +20(mA)
	θ⊥		-3		3		
Spectral width (RMS)	Δλ			2	2.5	nm	CW, I _{op} =I _{th} +20(mA), Tc=-40°C ~ 85°C (RMS, -20dB, K=1.00)
Rise / Fall Time (20%~80%)	T _r / T _f				150	ps	CW, Po=5mW, Tc=-40°C ~ 85°C
PD Monitor Current	I _m	100			800	uA	CW, I _{op} =I _{th} +20(mA), V _R =1V
PD Dark Current	I _d				0.1	uA	V _R =5V
PD Capacitance	C _{PD}		3	10		pF	V _R =5V @ 1MHz
Focal Length	FL	6.35	6.5	6.65		mm	CW, Po=5mW, SMF
Tracking Error	ΔPf / Pf	-1.0			1.0	dB	CW, I _m =Constant (@Po= I _{th} +20mA, Tc=25°C), TE=10log[(Po@Tc)/(Po@25°C)] Tc=-40~85°C

ABSOLUTE MAXIMUM RATINGS :

PARAMETERS	MIN	MAX	UNIT	CONDITIONS
Storage Temperature	-40	85	°C	
Operating Temperature	-40	85	°C	
Lead Solder Temperature		260	°C	10 seconds
LD Reverse Voltage		2	V	
LD forward current		100	mA	
PD Reverse Voltage		20	V	
PD forward Current		2	mA	

OUTLINE DIMENSIONS: (unit : mm)

Outline Dimensions	TME-3F22-506 (normal index cap)	
<p>Top view</p>  <p>Side view</p>  <p>Bottom view</p>  <p>Rev:D</p> <p>Unit : mm</p>	<p>Focal Length : 6.5 ± 0.15 mm</p> <p>Pin Out (Bottom View)</p>	<p>1: LD Cathode 2: PD Anode 3: LD Anode / PD Cathode 4: CASE</p>

Outline Dimensions	TME-3F22-506 (high index cap)	
<p>Top view</p>  <p>Side view</p>  <p>Bottom view</p>  <p>Rev:D</p> <p>Unit : mm</p>	<p>Focal Length : 6.5 ± 0.15 mm</p> <p>Pin Out (Bottom View)</p>	<p>1: LD Cathode 2: PD Anode 3: LD Anode / PD Cathode 4: CASE</p>

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

