

EP1550-FP-T Series

1550nm Fabry Perot Lasers - TO Can



FEATURES

- 1550nm emission wavelength
- InAlGaAs composition for reliable uncooled operation
- Operating Temperature Range -40 °C to +85 °C
- Low Threshold Current
- High Bandwidth - up to 2.5Gbps

APPLICATIONS

- High Speed Access Optical Links
- High Speed Datacoms
- FTTX
- PON
- Digital Transport Links (SDH/SONET)

ELECTRO-OPTICAL CHARACTERISTICS ($T_{op} = 25^{\circ}\text{C}$ unless stated otherwise):

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Threshold Current	I_{th}		9	15	mA	CW
Output Power	P_o	5			mW	CW, $I = I_{op}$
Operating Current						
Flat Window	I_{op}		25	34	mA	CW, $P_o = 5\text{mW}$
Ball Lens	I_{op}		29	39	mA	CW, $P_o = 5\text{mW}$
Peak Wavelength	λ	1520	1550	1580	nm	CW, $P_o = 5\text{mW}$
Wavelength Temperature coefficient			0.6		nm / °C	$-40^{\circ}\text{C} < T_{op} < 85^{\circ}\text{C}$
Quantum Efficiency						
Flat Window	η	0.25	0.31		mW/mA	CW, $P_o = 1$ to 5mW
Ball Lens	η	0.20	0.25		mW/mA	CW, $P_o = 1$ to 5mW
Forward Voltage	V_f		1.1	1.5	Volts	$I = I_{op}$
Output Power at Threshold				150	μW	
Beam Divergence \perp (Flat Window)	(θ_{\perp})		33		degrees	CW, $P_o = 5\text{mW}$
Beam divergence \parallel (Flat Window)	(θ_{\parallel})		23		degrees	CW, $P_o = 5\text{mW}$
Spectral Width RMS	$\Delta\lambda$			3	nm	$I = I_{op}$
Rise time/fall time						
155 Mbps version				700	ps	$I = I_{op}$
622 Mbps version				400	ps	$I = I_{op}$
1.25 Gbps version				250	ps	$I = I_{op}$
2.50 Gbps version				120	ps	$I = I_{op}$
Monitor output current		100		700	μA	$I = I_{op}$
Monitor PD terminal capacitance				20	pF	
Fiber Coupled Power						
Ball Lens	P_f	0.2			mW	CW, $I_{th}+20\text{mA}$, SM Fiber

Note: Unless otherwise stated measurements performed with a flat form window.

ABSOLUTE MAXIMUM RATINGS:

PARAMETER	CONDITION	MIN	MAX	UNIT
Forward Current (PD)			2	mA
Forward Current Transient (LD)	1 μs max		150	mA
Reverse Voltage (LD)			2	Volts
Reverse Voltage (PD)			15	Volts
Case Operating Temperature (T_{op})		T_{min}	T_{max}	
Q version		-40	85	°C
Storage Temperature		-40	85	°C



PACKAGE:

The EP1550-FP-T product series is offered in a TO 56 package format - see package outline drawings below (Fig 1). The package pinout may be specified according to the options shown in Fig 2.

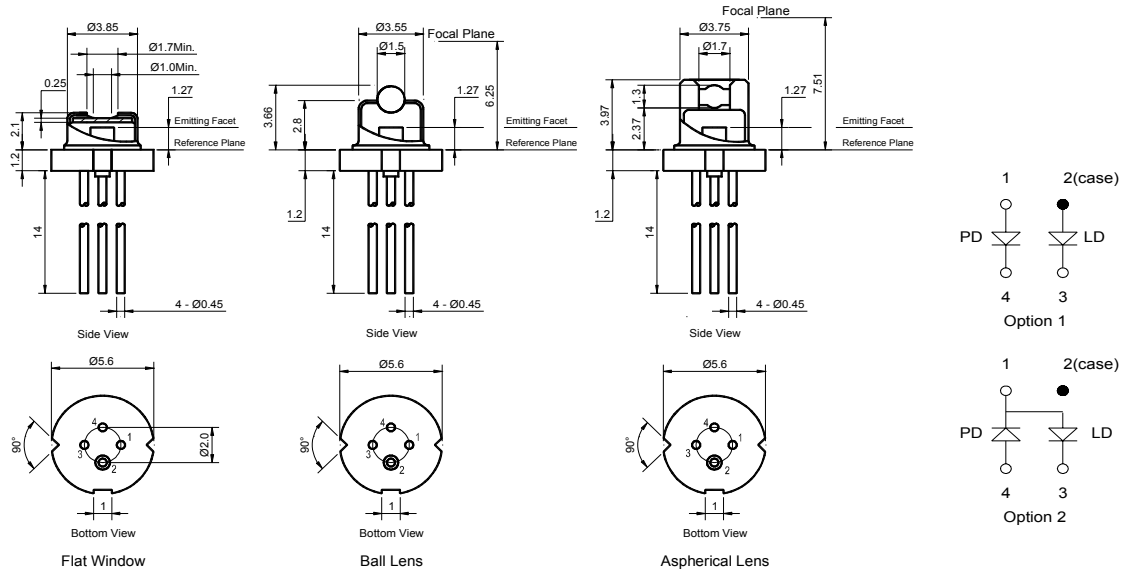
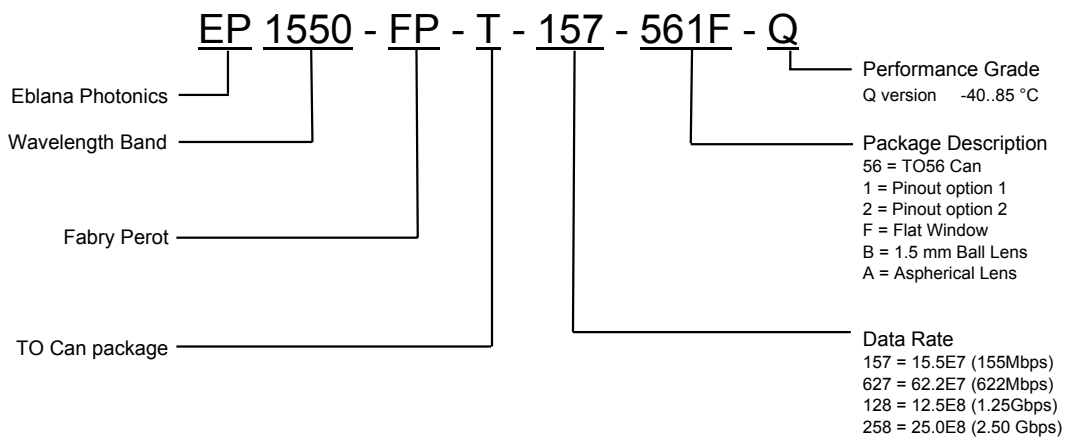


Fig. 1 - Package Outlines

Fig. 2 - Pinout Options

HOW TO ORDER (example):

Please use the following example as a guide to building the appropriate part number for the device you require:



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