

EX-S65

1654 nm DFB laser

REV 012

Description

The **EX-S65** series is a 1.65 μ m buried heterostructure (BH) InGaAsP/InP MQW-DFB (Distributed Feedback) laser diode entirely fabricated by MOVPE.

Key features

- Multiple Quantum Well (MQW) Distributed Feedback (DFB)
- Buried Heterostructure (BH) design
- High side mode suppression
- High reliability
- RoHS compliancy

Applications

- CH4 detection/OTDR

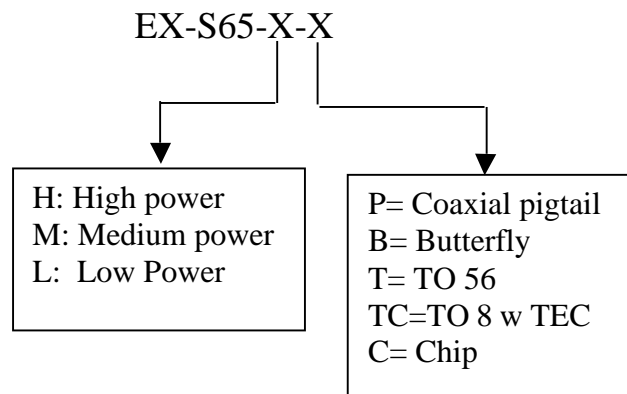
Absolute Maximum Rating:

Parameter	Symbol	Condition	Min	Max	Unit
Operating Case Temperature	T_c	$I=I_{op}$	-20	85	$^{\circ}$ C
Storage Temperature	T_{stg}	--	-40	100	$^{\circ}$ C
Laser Forward Current	--	--	--	150 (CW)	mA
Laser Reverse Bias	V_r	--	--	2	V
Photodiode Reverse Bias	V_{rpd}	--	--	10	V

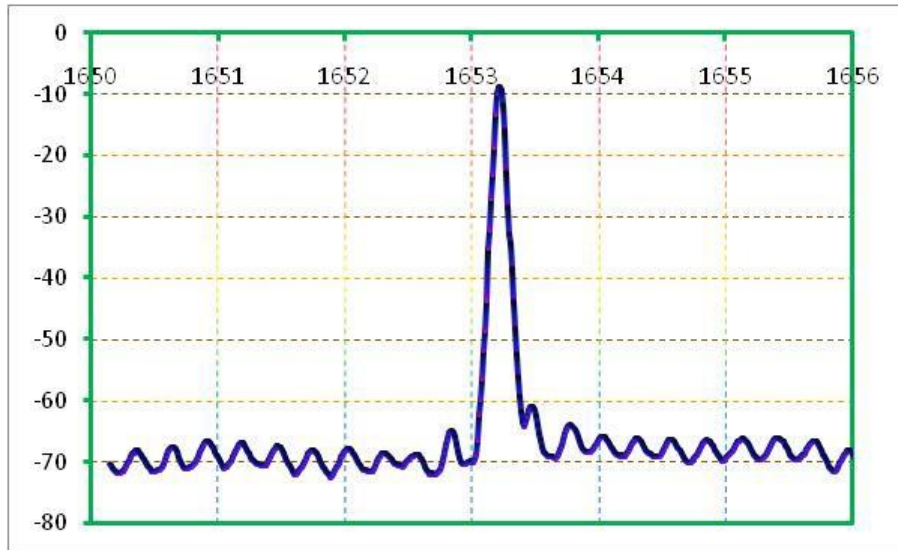
Electro-Optical Characteristics Tested under $T_c=25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Threshold Current	I_{th}	25°C	-	13	40	mA
Slope Efficiency	η	$I_{th}+20$ to 60 mA	0.13	-		mW/mA
Output Power (Chips)	P_o	CW (for CH4 Pulse = 10 μs , Duty = 1%, $I_f=450$ mA)	5 50	-		mW
Forward Voltage	V_f	500mA(pulse)	-	-	2.6	V
Serial Resistance	R_s		-	4	8	Ohm
Center Wavelength	λ_c	$I_{op}(\text{CH4})$ $I_{op}(\text{OTDR})$	1651 1640	1653 1650	1655 1660	nm
Side-mode Suppression ratio	SMSR	$I_{th}+20\text{mA}$	35	40	-	dB
Perpendicular Far Field Angle	θ_v	$P_o = 5\text{mW}$	-	26	35	Deg.
Parallel Far Field Angle	θ_h	$P_o = 5\text{mW}$	-	25	30	Deg.

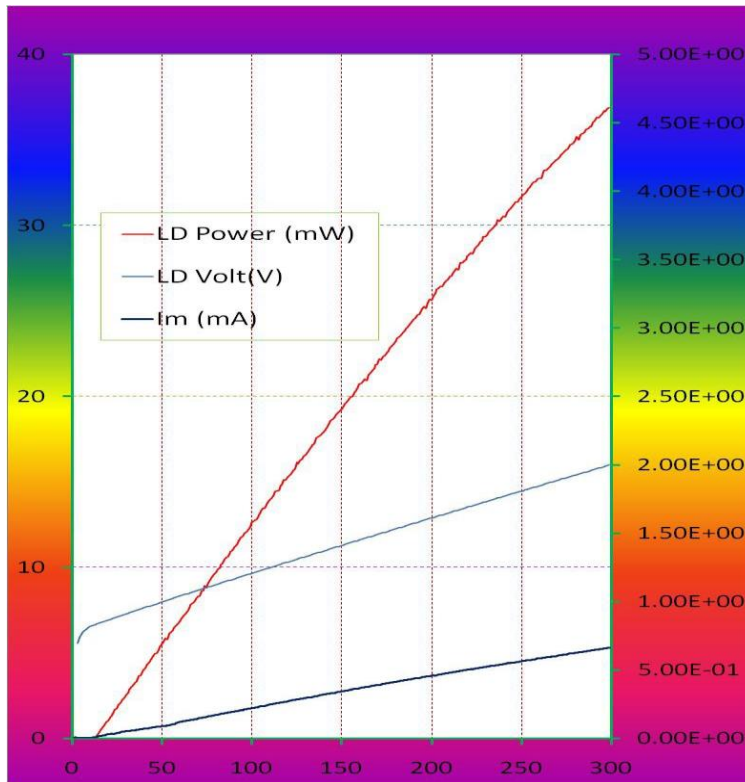
Ordering Options:



Typical Spectrum Curve



Typical LIV Curve (Butterfly):



ExOptronics, Inc. reserves the right to make changes in design, specifications without prior notice.