

InGaAs/InP Strained MQW Laser Diode

DESCRIPTION

LD-1550s are thermoelectrically cooled, single-mode fiber pigtailed 1550nm lasers with advanced strained multiple quantum wells. A lensed fiber is laser welded to insure low tracking error and long-term stability. An InGaAs backfacet monitor is provided for power monitoring.

ABSOLUTE MAXIMUM RATINGS (T = 25°C)

PARAMETER	RATING	UNITS
Storage Temperature	-30 to +70	°C
Operating Temperature	-10 to +60	°C
Forward Current	150	mA
Reverse Voltage	2	V

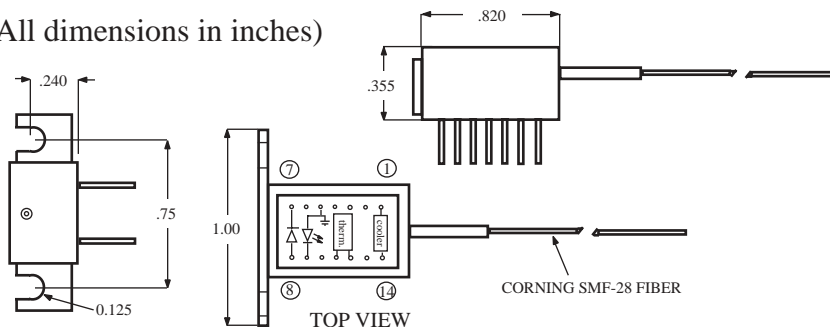


OPTICAL AND ELECTRICAL CHARACTERISTICS (T = 25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Threshold Current	I_{th}	CW	-	10	30	mA
Forward Voltage	V_f	CW, $I_f = 60\text{mA}$	-	1.2	1.6	V
Optical Power	P_o	CW, $I_f = I_{th} + 30\text{mA}$	0.5	1	-	mW
Peak Wavelength	ζ_p	CW, $P_o = 1\text{mW}$	1530	1550	1570	nm
Spectral Width (FWHM)	$\div \zeta$	CW, $P_o = 1\text{mW}$	-	4	6	nm
Rise Time	t_r	$P_o = 1\text{mW}$, $I_{bias} = I_{th}$	-	0.2	0.5	nsec
Fall Time	t_f	$P_o = 1\text{mW}$, $I_{bias} = I_{th}$	-	0.4	0.5	nsec
Thermistor R	R	$T_{laser} = 25^\circ\text{C}$	9	-	11	KT
TEC Current	I_{TEC}	-	-	-	0.8	A

DIMENSIONAL OUTLINE

(All dimensions in inches)



Pin #	Function
1	Cooler (+)
2-4	N/C
5	LD Anode (+), GND
6	N/C
7	Monitor (+V)
8	Monitor (-V)
9	LD Cathode (-)
10	LD Anode (+), GND
11	Thermistor
12	Thermistor
13	N/C
14	Cooler (-)

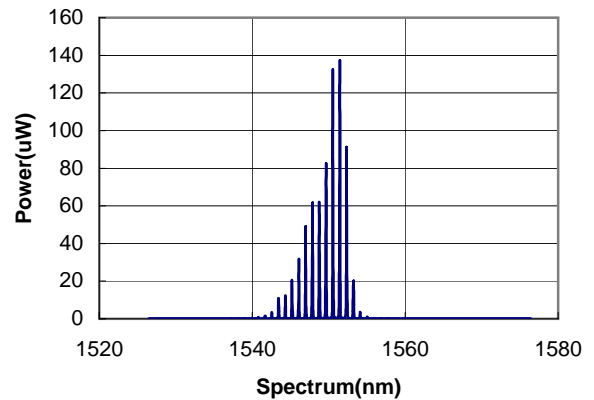


PART NUMBER
LD - 1550

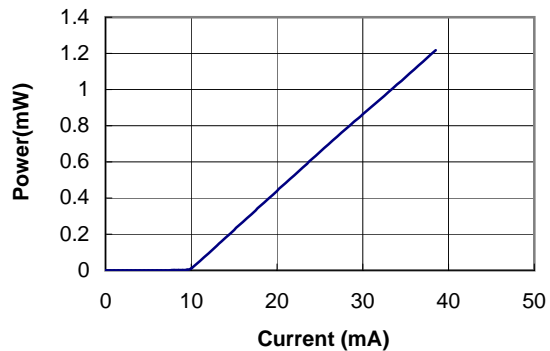
InGaAs/InP Strained MQW Laser Diode

Serial Number
Po(mW) 1.00
Ith(mA) 9.55
If(mA) 33.29
Imo(uA) 795.66
Es(uW/mA) 42.11
Spectral Width(nm) 2.73
Center Wavelength(nm) 1551

Output Spectrum



Output Power vs Input Current



Monitor Current vs Output Power

