

Target Specification

1300nm DFB Laser in Coaxial Package with SM-Pigtail, High Power, with optical Isolator for 2,5Gbit Application and adaption board to Butterfly footprint

Designed for application in high-speed and long haul fiber-optic networks
 Laser Diode with Multi-Quantum-Well and gain coupled structure
 Suitable for bit rates up to 2,5 Gbit/s (STM-16) with optical isolator, without cooler
 Ternary photodiode at rear mirror for monitoring and control of radiant power
 Hermetically sealed subcomponent, similar to TO 18 SM Pigtail with optional flange.

Maximum Ratings

Output power ratings refer to the SM fiber output. The operating temperature of the submount is identical to the case temperature

Module	Symbol	Values	Unit
Operating Temperature range at case	T_C	0... +70	°C
Storage Temperature range	T_{stg}	- 40... +85	°C
Soldering Temperature tmax = 10 s, 2 mm distance from bottom edge of case	T_S	260	°C

Laserdiode	Symbol	Values	Unit
Direct forward current	$I_{F \max}$	120	mA
Radiant power CW	Φ_e	4	mW
Reverse Voltage	$V_{R \max}$	2	V

Monitor Diode	Symbol	Values	Unit
Reverse Voltage	$V_{R \max}$	10	V

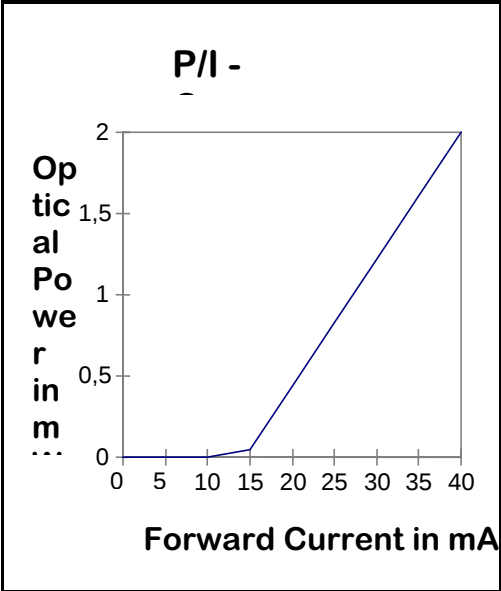
Characteristics

All optical data refer to a coupled 10/125 nm SM fiber, Tc =25°C.

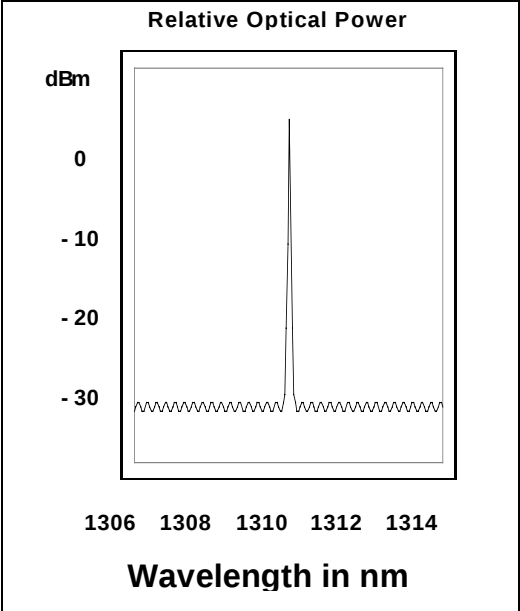
Laser Diode	Symbol	Values	Unit
Optical Output Power	Φ_e	>2,4	mW
Emission wavelength center of range $\Phi_e = 1 \text{ mW}$	λ	1280...1330	nm
Spectral bandwidth $\Phi_e = 1 \text{ mW (RMS)}$, f<5GHz	$\Delta\lambda$	< 0,1	nm
Side mode suppression ratio	SSR	>30	dB
Threshold current (0...+70°C)	I_{th}	5...55	mA
Forward voltage $\Phi_e = 1 \text{ mW}$	V_F	< 1,5	V
Radiant power at threshold	Φ_{eth}	< 80	μW
Slope Efficiency (0...+70°C)	η	25...150	mW/A
Differential series resistance	R_S	< 8	Ω
Rise Time/Fall Time	t_R, t_F	< 0,5	ns
Temperature Coefficient of the emission wavelength center	TC_λ	<0,15	nm/K
Optical Isolation (T=25°C)		>30	dB

Monitor Diode	Symbol	Values	Unit
Dark Current, $V_R = 5 \text{ V}$, $\Phi_e = 0$	I_R	<500	nA
Photocurrent, $\Phi_e = 1 \text{ mW}$	I_P	100...1400	μA

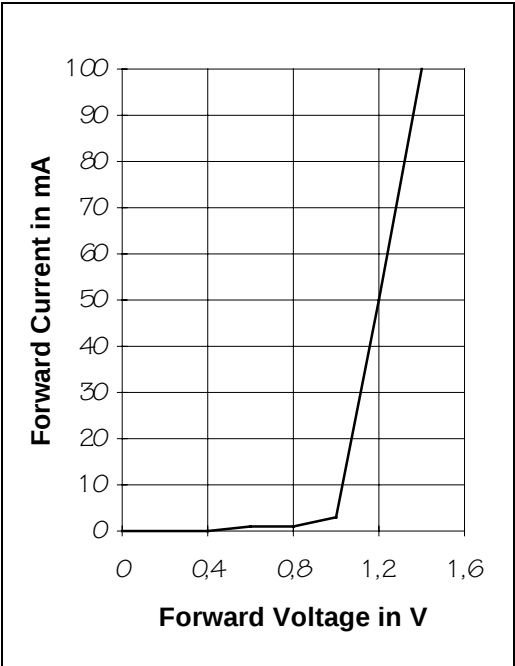
Laser Diode
Radiant Power in Singlemode Fibre



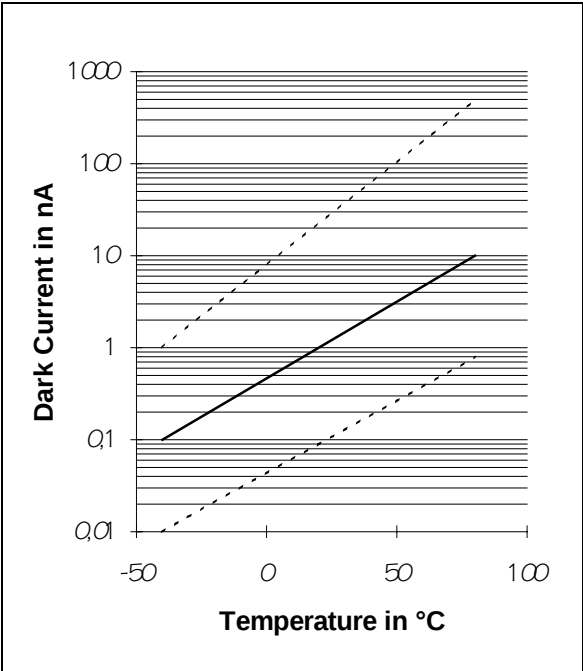
Relative Radiant Power
 $\Phi_e = f(\lambda)$



Laser Forward Current
 $I_F = f(V_F)$



Monitor Diode Dark Current $I_R = f(T_A)$
 $\Phi_{\text{port}} = 0, V_R = 5V$



Ordering Information:

Type	Ordering Code	Connector/Flange
SEH61008G	Qxxxxx-Pxxxx	FC / without flange
SEH61008A	Oxxxxx-Pxxxx	DIN / without flange

Component with other connector types on request

Package Dimension:

