Target Specification
1300nm DFB Laser in Coaxial Package with SM-Pigtail, High Power, with optical Isolator for 2,5GBit Application

Designed for application in high-speed and long haule 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

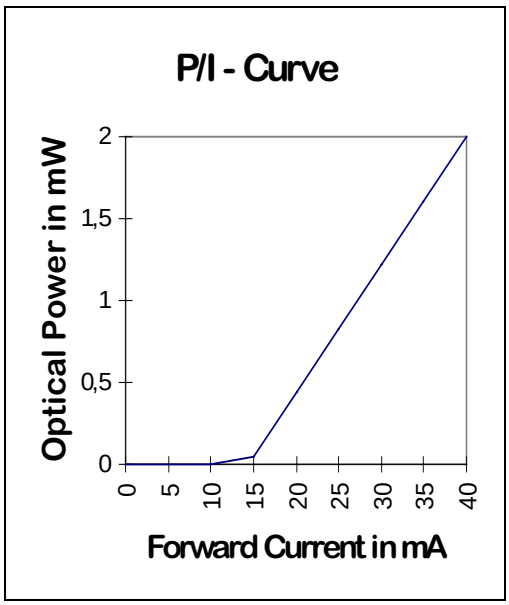
Monitor Diode	**Symbol**	**Values**	**Unit**
Reverse Voltage	$V_{R\ max}$	10	V

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

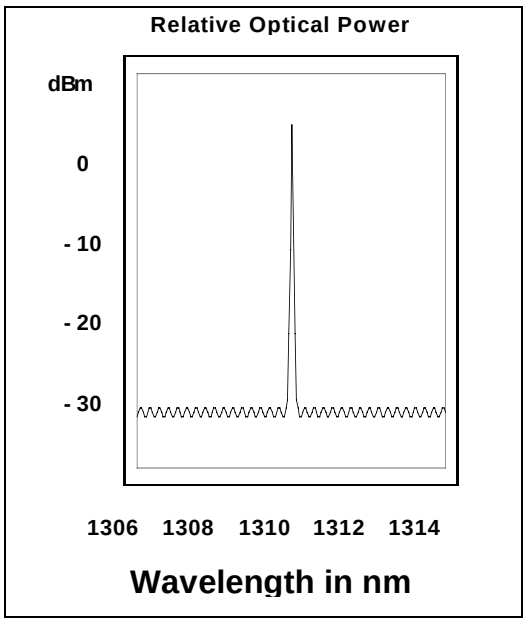
Laser Diode	**Symbol**	**Values**	**Unit**
Optical Output Power	Φ_e	>2,4	mW
Emission wavelength center of range Φ_e =1 mW	λ	1280...1330	nm
Spectral bandwidth Φ_e =1mW(RMS), f<5GHz	$\Delta\lambda$	< 0,1	nm
Side mode suppression ratio	SSR	>30	dB
Threshold current (0...+70°C)	I_{th}	5...55	mA
Forward voltage Φ_e =1mW	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 =5V, Φ_e = 0	I_R	<500	nA
Photocurrent, Φ_e =1mW	I_P	100...1400	µA

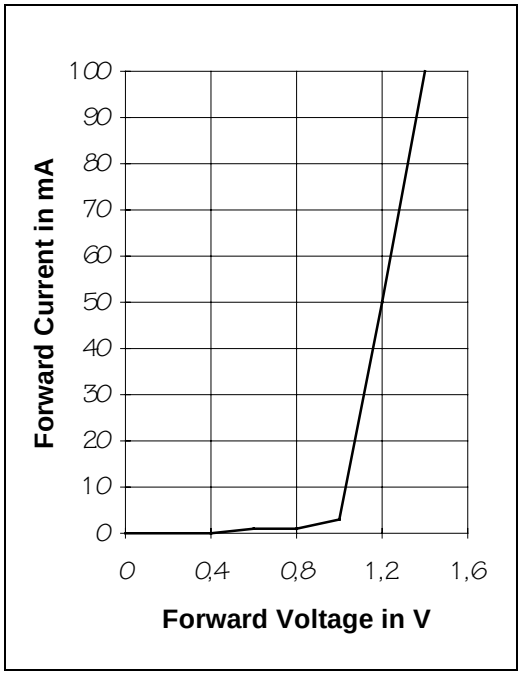
Laser Diode
Radiant Power in Singlemode Fibre



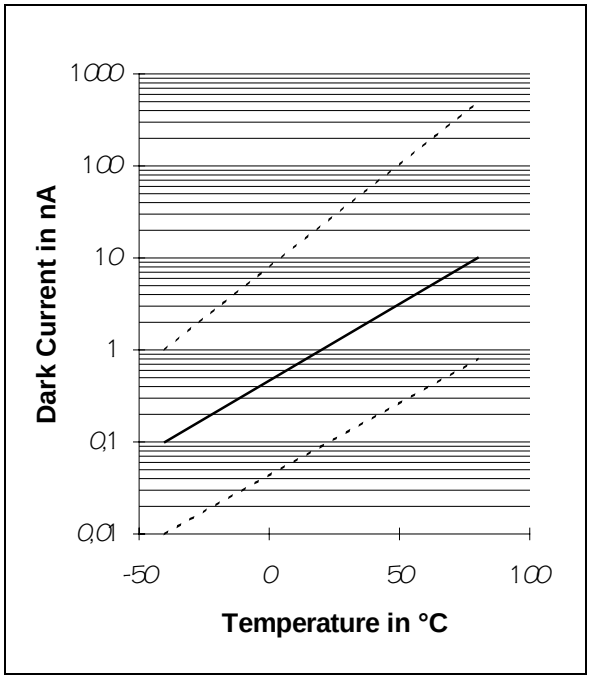
Relative Radiant Power
$\Phi_e = f(\lambda)$



Laser Forward Current
$I_F=f(V_F)$



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



Ordering Information:

Type	Ordering Code	Connector/Flange
STH61008G	Q62702-Pxxxx	FC / without flange
STH61008A	Q62702-Pxxxx	DIN / without flange

Component with other connector types on request