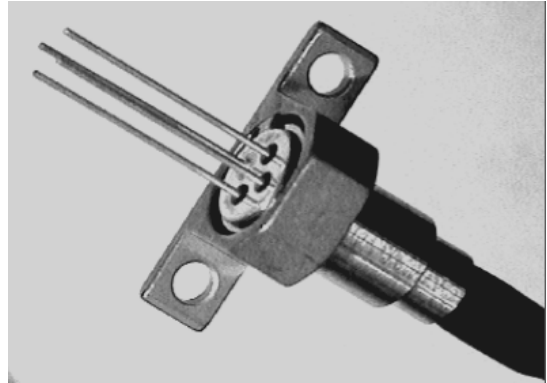


Target Specification 1300nm DFB Laser in Coaxial Package with SM-Pigtail, High Power

- 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 622 Mbit/s (STM-4) without thermoelectric cooler and optical isolator
- 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
		Min.	Max.	
Operating Temperature range at case ¹⁾	T_C	0	75	°C
Storage Temperature range	T_{std}	- 40	85	°C
Soldering Temperature tmax = 10 s, 2 mm distance from bottom edge of case	T_S		260	°C

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

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

1) Lasermodule for 85°C operating temperature on request

Characteristics

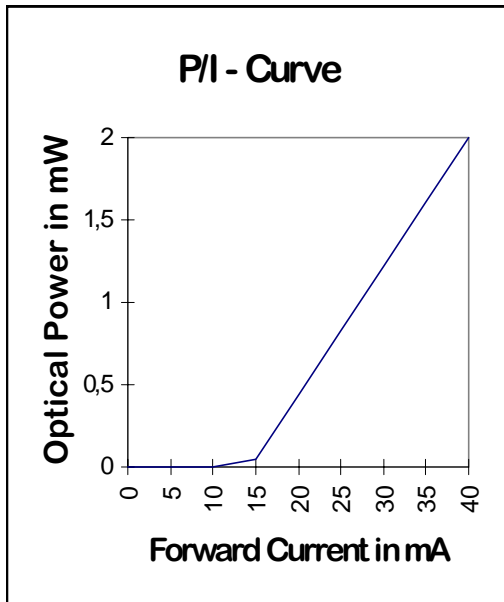
All optical data refer to a coupled 10/125 μ m SM fiber, Tc =25°C.

Laser Diode	Symbol	Values		Unit
		Min.	Max.	
Optical Peak Output Power	Φ_{pk}	2,4		mW
Optical Average Output Power	Φ_{av}	1,0		mW
Emission wavelength center of range $\Phi_{av} = 1$ mW	λ	1280	1330	nm
Spectral bandwidth $\Phi_{av} = 1$ mW (RMS)	$\Delta\lambda$		0,1	nm
Side mode suppression ratio	SSR	30		dB
Threshold current (0...+75°C)	I_{th}		55	mA
Forward voltage $\Phi_{av} = 1$ mW	V_F		1,5	V
Radiant power at threshold	Φ_{eth}		80	μ W
Slope Efficiency (0...+75°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	$TC\lambda$		0,15	nm/K

Monitor Diode	Symbol	Values		Unit
		Min.	Max.	
Dark Current, $V_R = 5$ V, $\Phi_{av} = 0$	I_R		10	nA
Photocurrent, $\Phi_{av} = 1$ mW	I_P	100	1500	μ A

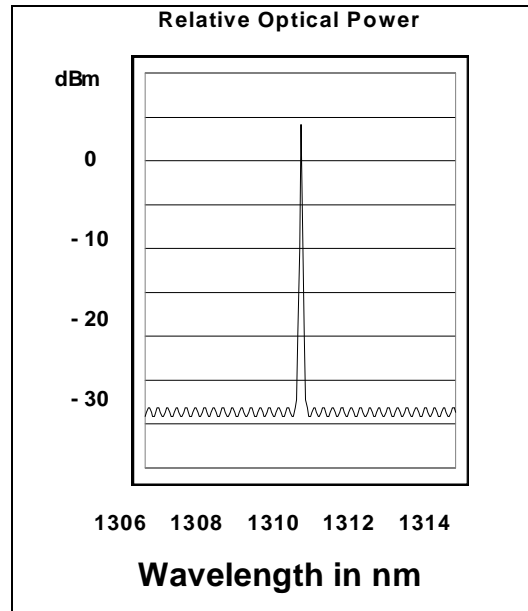
Laser Diode

Radiant Power in Singlemode Fibre



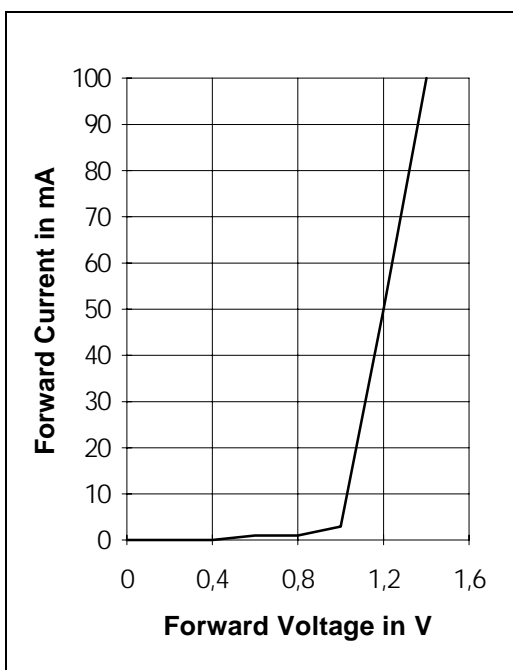
Relative Radiant Power

$$\Phi_{av} = f(\lambda)$$



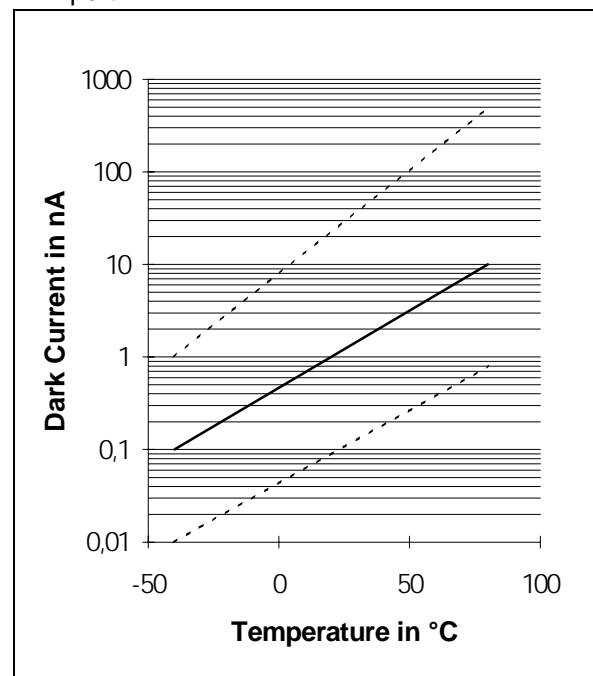
Laser Forward Current

$$I_F = f(V_F)$$



Monitor Diode Dark Current $I_R = f(T_A)$

$$\Phi_{port} = 0, V_R = 5V$$



Ordering Information:

Type	Ordering Code	Connector/Flange
STH61004G	Q62702-P3154	FC / without flange
STH61004A	Q62702-P3128	DIN / without flange
STH61005G	Q62702-P3187	FC / with flange
STH61005A	Q62702-P3221	DIN / with flange

Component with other connector types on request

Package Dimension:
STH61004x

STH61005x (with flange)

