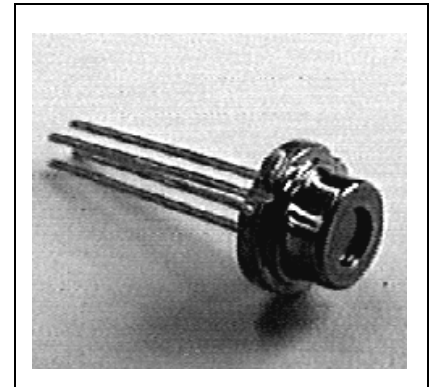


SIEMENS**STH81002Z****1550nm Laser in Coaxial TO-Package**

- Designed for application in fiber-optic networks
- Laser Diode with Multi-Quantum Well structure
- Suitable for bit rates up to 1 Gbit/s
- Ternary photodiode at rear mirror for monitoring and control of radiant power
- Hermetically sealed subcomponent, similar to TO 18
- with integrated Silicon-Optics for high coupling efficiencies

**Maximum Ratings**

Output power ratings refer to the optical port. The operating temperature of the submount is identical to the case temperature

Module	Symbol	Values	Unit
Operating Temperature range at case	T_C	- 40... +85	°C
Storage Temperature range	T_{sta}	- 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	10	mW
Reverse Voltage	$V_{R\ max}$	2	V

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

Characteristics

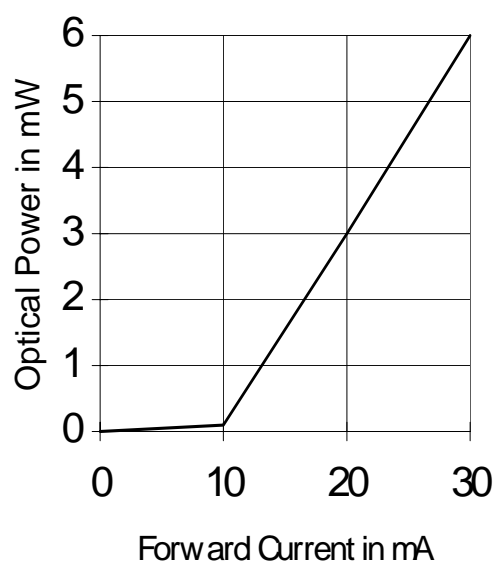
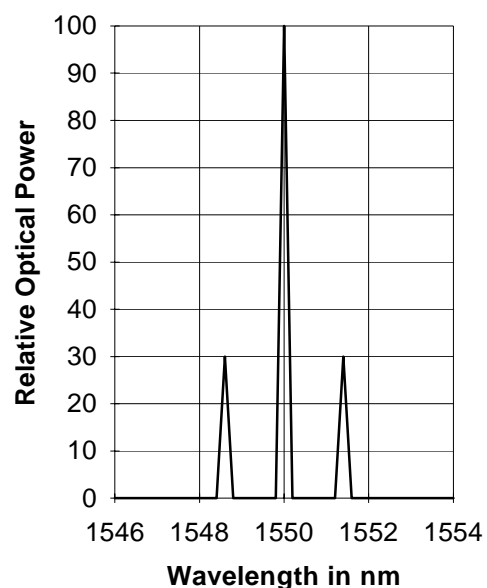
All optical data refer to the optical port.

Laser Diode	Symbol	Values	Unit
Optical Output Power	Φ_e	>6	mW
Emission wavelength center of range $\Phi_e = 3$ mW	λ	1510...1590	nm
Spectral bandwidth $\Phi_e = 3$ mW (RMS)	$\Delta\lambda$	<5	nm
Threshold current	I_{th}	< 15	mA
Forward voltage $\Phi_e = 3$ mW	V_F	< 1,5	V
Radiant power at threshold	Φ_{eth}	< 200	μ W
Slope Efficiency	η	> 200	mW/A
Differential series resistance	r_S	< 8	Ω
Rise Time/Fall Time	t_R, t_F	< 1	ns

Monitor Diode	Symbol	Values	Unit
Dark Current, $V_R = 5$ V, $\Phi_e = 0$	I_R	<500	nA
Photocurrent, $\Phi_e = 3$ mW	I_P	150...1500	μ A

Laser Diode

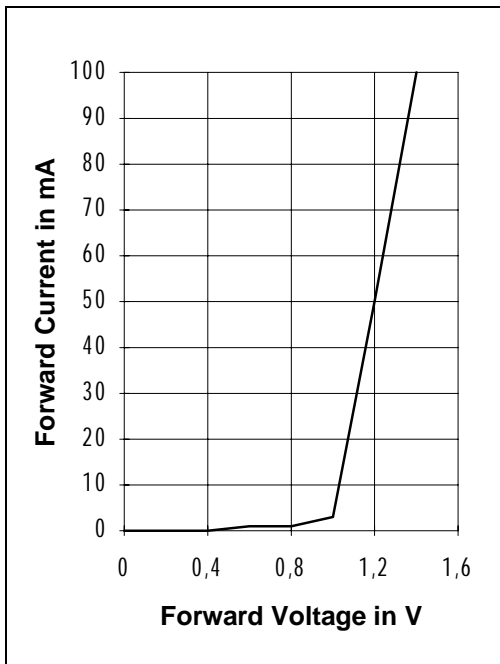
Radiant Power in Singlemode Fibre

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

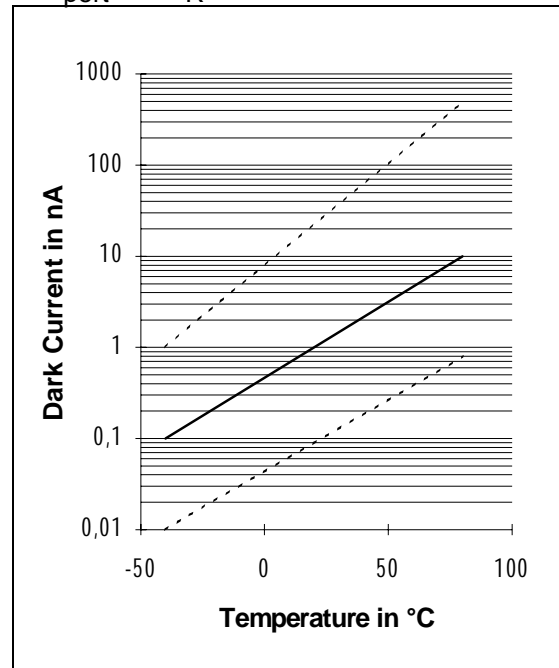
www.DataSheet4U

SIEMENS**STH81002Z****Laser Forward Current**

$I_F = f(V_F)$

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

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



www.DataSheet4U.com

Ordering Information:

Type	Ordering Code
STH81002Z	Q62702-Pxxxx

Component with other Pinout on request