

1A850U1 OECA-ST100

Description

The 1A850U1 OECA-ST100 is a 850 nm Vertical Cavity Surface Emitting Laser (VCSEL) in a ST-receptacle. The assembled device is electrical isolated from the ST-receptacle (maximum voltage 20V) to protect the diode against ESD-damaging.

Applications

- Fiber Channel, Gigabit Ethernet, InfiniBand, ATM
- General applications

Features

- Wavelength $\lambda = 850$ nm
- Data rate > 2.5Gbps
- Laser Class 1

850 nm High-Performance VCSEL



Device can differ from picture.
For details and pin out please refer to the drawing.

Absolute Maximum Ratings

($T_C = 20^\circ\text{C}$)

Parameter	Symbol	min.	max.	Unit
Reverse Voltage	V_R		8	V
Continuous Forward Current	I_F		15	mA
Operating Temperature	$T_{OP} = T_C$	-40	+85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40	+85	$^\circ\text{C}$
Soldering Temperature / Soldering Time	T_{sold} / t_{sold}		330/5	$^\circ\text{C/s}$

Optical and Electrical Characteristics

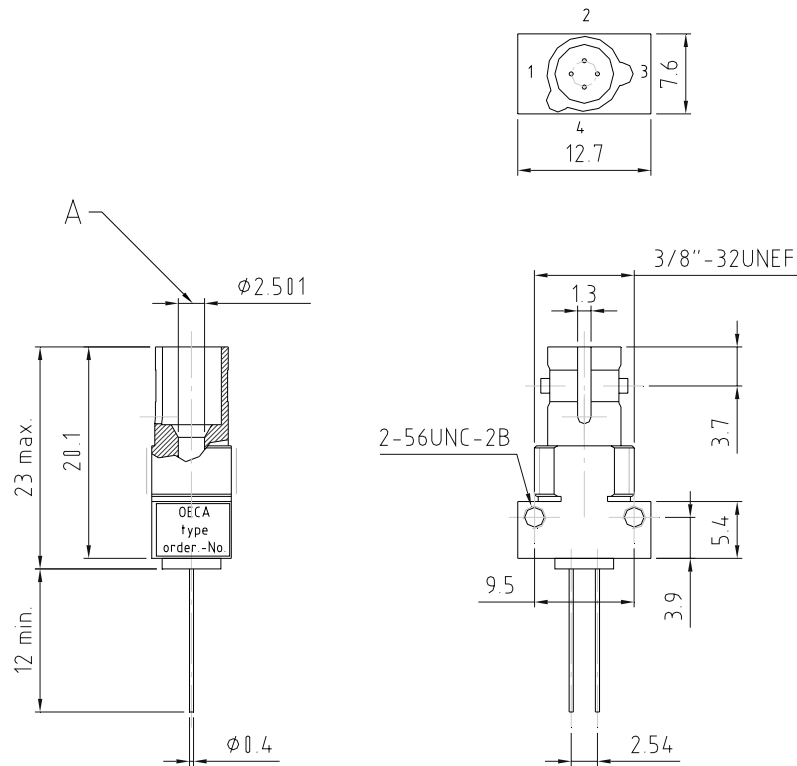
($T_C = 20^\circ\text{C}$)

Parameter	Symbol	Condition	min.	typ.	max.	Unit
Fiber Coupled Power	P_{fiber}	optimized for 50/125 μm NA = 0.2 $I_F = 6\text{mA}$	45		70	μW
Peak Wavelength	λ_p	$I_F = 6\text{mA}$	835	850	860	nm
Spectral Bandwidth	$\Delta\lambda$	$I_F = 6\text{mA}$			1	nm
Forward Voltage	V_F	$I_F = 6\text{mA}$	1.8	2.0	2.2	V
Threshold Current	I_{th}				2.0	mA
Bandwidth 3dB	f_c		3.0			GHz

Thermal Characteristics

Parameter	Symbol	min.	typ.	max.	Unit
Thermal Resistance - Infinite Heatsink	R_{thcc}			1	K/mW
Temperature Coefficient - Wavelength	$d\lambda/dT_j$		0.07		nm/K

Drawing

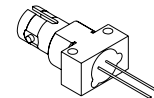


A - Tolerance Grade 3, DIN EN 61754-2

Tolerances acc. to DIN ISO 2768mH, unless otherwise stated

Pinout according to specification

Accessories: dust cover
nut 3/8"-32UNEF
washer 3/8"
2x screw 2-56UNC



Pin-Out

Pin	VCSEL 1A850U1
1	Cathode (-)
2	removed
3	Anode (+)
4	removed

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