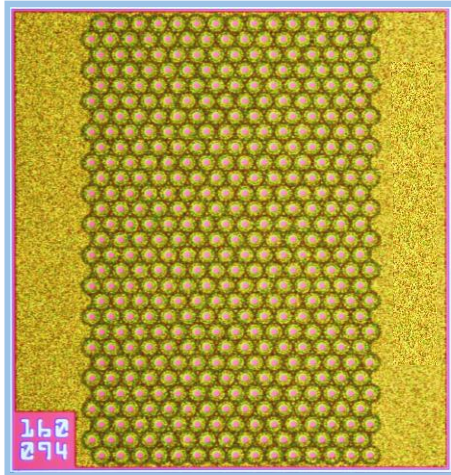


3W 980 nm Multi-Mode VCSEL

S-V980S30-000

[Draft Version]



A TYPICAL WAFER PROBER TESTED VCSEL

FEATURES

- 980nm multi-mode top-emitter
- Low threshold and operating currents
- Top-anode and Bottom-cathode configuration
- Non hermetic design

APPLICATIONS

- IR illumination
- Sensing
- Industry Heating

ELECTRO OPTICAL CHARACTERISTICS

Parameters	Symbol	Conditions	Specification/Rating			Unit
			Min.	Typ.	Max.	
Threshold current	I_{th}	T=55 °C		0.45		A
Operating voltage	V_{op}	T=55 °C, $I_{op}=3.5A$	1.75	2.00		V
Series resistance	R_s	T=55 °C		0.19		Ω
Slope efficiency	η	T=55 °C		0.90		W/A
Output power	LOP	T=55 °C, $I_{op}=3.5A$	2.50	2.90		W
Beam divergence	FW86%	T=55 °C, $I=3.5A$		23		deg.
Emission wavelength	λ	T=25-85 °C, $I_{op}=3.5A$	970	980	990	nm
Conversion efficiency	PCE	T=55 °C		37		%

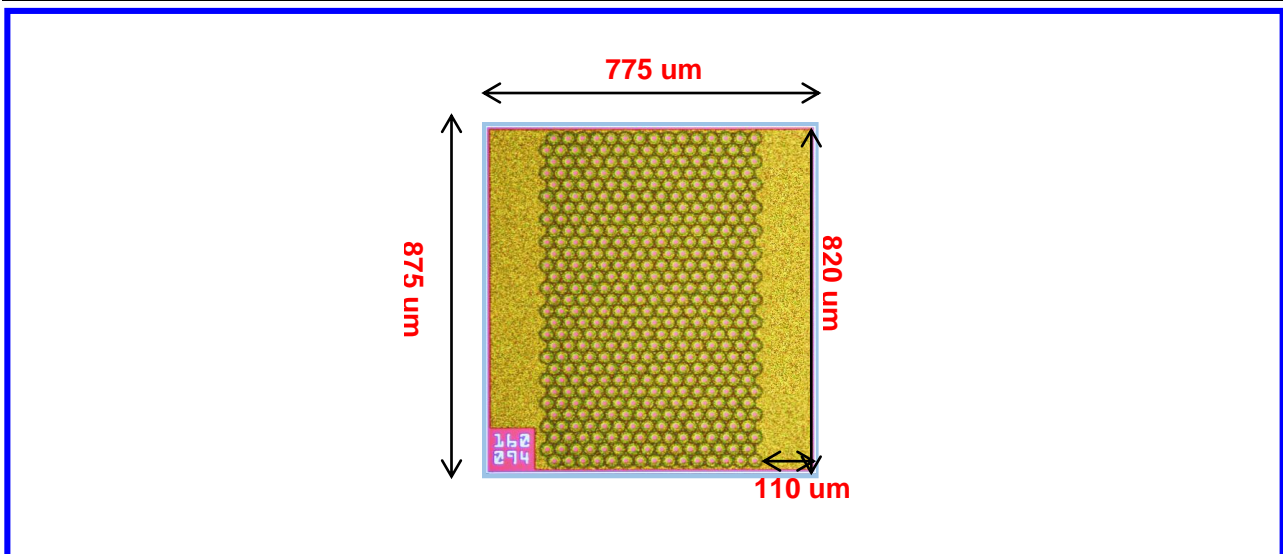
Note: The testing condition is 0.3ms-pulse/1%-Duty.

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Max.	unit
Peak forward current	I_{max}	4	A
Optical output power	P_{max}	3.19	W
Reverse Voltage	V_r	-5	V
Operating Temperature	T_{op}	0 to 85	°C
Storage Temperature	T_{st}	-40 to 100	°C
Mounting Temperature (max. 10 sec)	T_m	260	°C

VCSEL CHIP DIMENSIONS

Parameter	Symbol	Min.	Typ.	Max.	Unit
Die Length	L	855	875	895	um
Die Width	W	755	775	795	um
Die Thickness	T	85	100	115	um
Bonding pad length	L_{pad}		820		um
Bonding pad width	W_{pad}		110		um
Emitter count	$\#.E$		435		ea



RoHS Compliance

Xiamen Sanan Integrated Circuit is fully committed to environment protection and sustainable development and has set in place a comprehensive program for removing polluting and hazardous substances from all of its products. The relevant evidence of RoHS compliance is held as part of our controlled documentation for each of our compliant products. RoHS compliance parts are available to order, please refer to the ordering information section for further details.

Ordering Information

Product Code	Power	Description
S-V980S30-000	3W	980 nm Multi-Mode VCSEL Chip

Customer Contact Information

Website: <http://www.sanan-ic.com/>
Email: Sales-od@sanan-ic.com
TEL: 86-592-6300505

Important Notice

Performance data, figures, tables, charts, and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing with Sanan before they become applicable to any particular order or contract. In accordance with the Sanan policy of continuous improvement specifications may change without notice. Further details are available from Sanan customer contact.

Quality Certifications

- 0016Q35695R0M/3502(ISO9001:2015)
- 00217E31547R0M(ISO14001:2015)

Safety Labels

