

RayCan 1310 nm Vertical-Cavity Surface-Emitting Laser

RC2xxx2-A

Description

The RayCan 1310 nm VCSEL array is designed for high-speed, high-performance communication applications.

Features

- Low dependence of electrical and optical characteristics over temperature
- Data rates from OC-3 to OC-48

Applications

- Access network for long distance (>2 km)
- Metro area network
- Gigabit Ethernet

Electrical and optical characteristics (T = 20°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Threshold current	I_{th}	1	2	4	mA	
Forward voltage	V_f		3		V	
Series resistance	R_s		100	200	Ω	
Output power	P_o	0.5	~ 0.7		mW	
Wavelength	λ	1290	1310	1360	nm	
Rise and fall time	t_r t_f		~ 100 ~ 150		psec	(20%-80%)
Beam divergence	θ	7	9	11	degree	FWHM

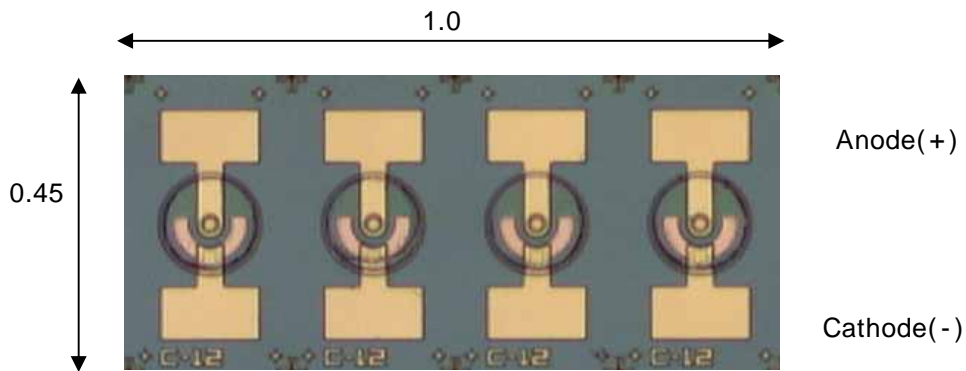
Absolute maximum ratings

Parameter	Symbol	Rating	Unit	Notes
Forward current	I_f	10	mA	
Reverse voltage	V_r	5	V	
Operating temperature	T_{op}	70	°C	
Storage Temperature	T_{stg}	0 ~ 100	°C	
Reflow Temperature	T_{ref}	260	°C	10 sec. max

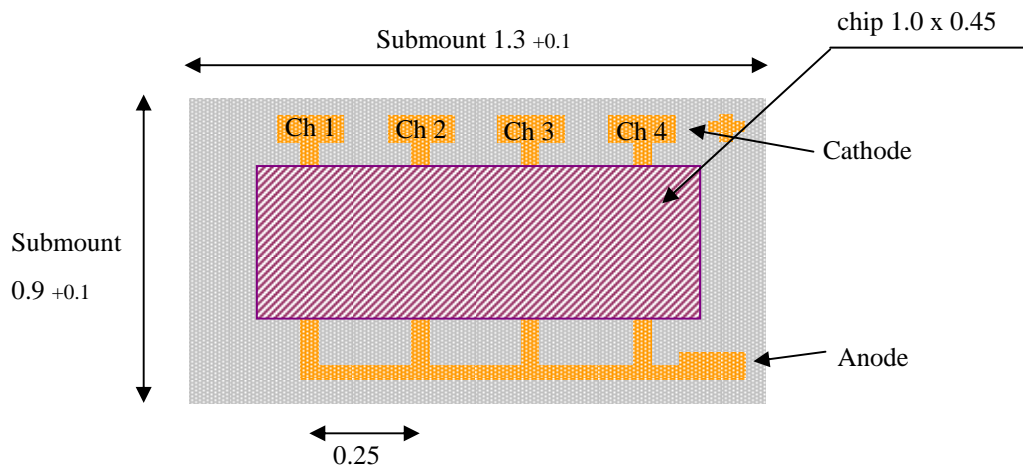
4 ch. VCSEL array chip & chip on submount

Dimensions unit : mm

Chip : top side view



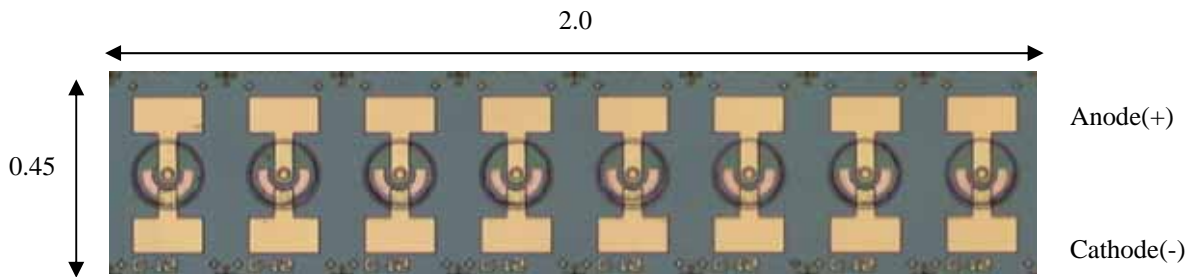
Chip on sub-mount : top side view



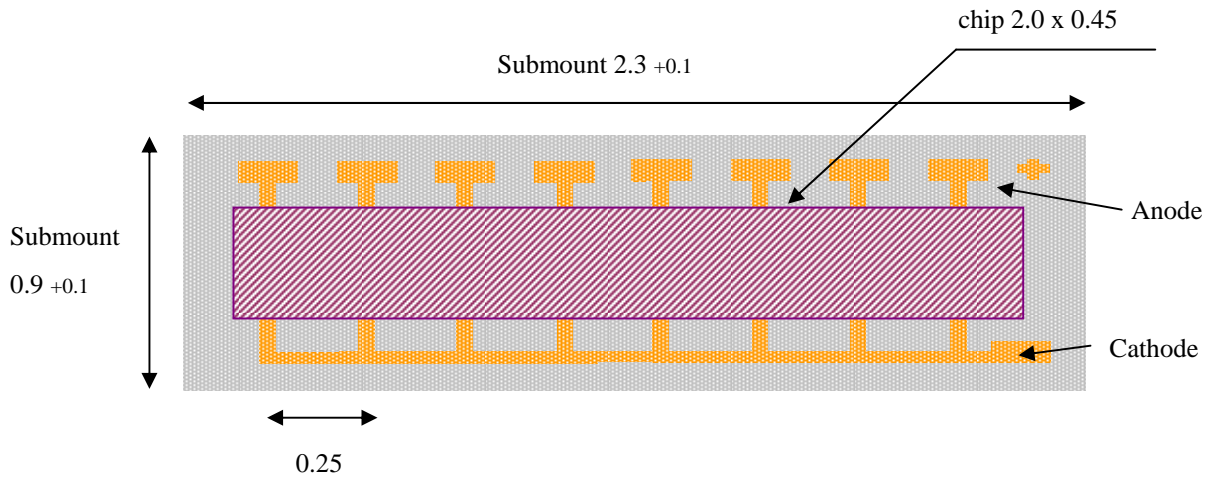
8 ch. VCSEL array chip & chip on submount

Dimensions unit : mm

Chip : top side view



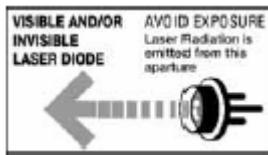
Top side with submount



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Warning

Laser beams emitted from this product are hazardous to the naked eye. Avoid eye or skin exposure to direct or scattered radiation.

Caution

This product is sensitive to the electrostatic discharge(ESD). To prevent ESD-induced damage and/or degradation to equipment, take normal ESD precautions when handling this product.

RayCan

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