1310 nm Vertical-Cavity Surface-Emitting Laser

RC22xxx2-F

Description

The SVC 1310 nm multimode VCSEL 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

• Cylindrical TO package with multimode fiber pigtail

Applications

• Access network for long distance (>2 km)

• Metro area network

• Gigabit Ethernet

Electrical and optical characteristics

(T = 25°C unless otherwise stated)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Threshold current	I_{th}		3	4	*mA*	
Forward voltage	V_f			3	*V*	
Series resistance	R_s		70	150	*Ω*	
Output power	P_o	0.5	0.7		*mW*	50 μm MMF
Wavelength	λ	1270	1310	1340	*nm*	
RMS spectral width	$\Delta\lambda$		0.5	0.85	*nm*	
Rise and fall time	t_r t_f		~ 100 ~ 150		*psec*	(20%-80%)

Absolute maximum ratings

(T = 25°C unless otherwise stated)

Parameter	Symbol	Rating	Unit	Notes
Forward current	I_f	15	*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. 2 mm from case

Notice

Conditions exceeding those listed may cause permanent damage to the device. Devices subjected to conditions beyond the limits specified for extended periods of time may adversely affect reliability.

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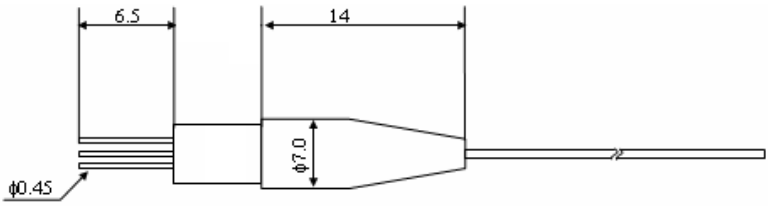
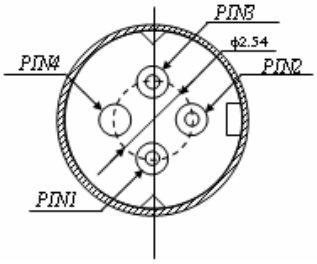
TO-56 pigtail VCSEL

Dimensions unit : mm

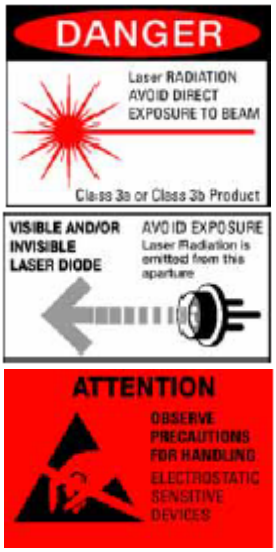


TO package bottom side view



Pinout

Number	Function
1	VCSEL Anode
2	VCSEL Cathode
3	-
4	Case



Warning

The VCSEL is a class IIIb laser. Laser beams emitted from this product are hazardous to the naked eye. Avoid eye or skin exposure to direct or scattered radiation. Due to the size of the component, the applicable warning logotype, aperture label, and identification label can not be placed on the component.

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.

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