

**Description**

The RayCan 1550 nm single mode VCSEL is designed for high-speed, high-performance communication applications.

**Features**

- Low dependence of electrical and optical characteristics over temperature
- Data rates up to 4 Gbps

**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	$I_{th}$		2	3	mA	
Forward voltage	$V_f$			3	V	
Series resistance	$R_s$		100	200	$\Omega$	
Output power	$P_o$	0.7	1.0		mW	
Wavelength	$\lambda$	1530	1550	1570	nm	
Side mode suppression	SMSR	30	35		dB	
Rise and fall time	$t_r$ $t_f$		~ 90 ~ 120		psec	(20%-80%)
Beam divergence	$\theta$		10	12	degree	FWHM

**Absolute maximum ratings**

(T = 25°C unless otherwise stated)

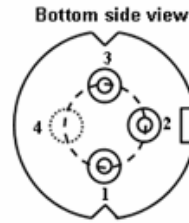
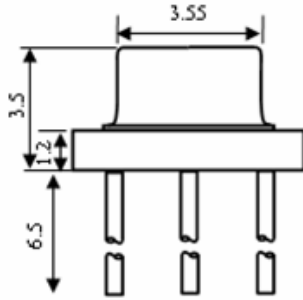
Parameter	Symbol	Rating	Unit	Notes
Forward current	$I_f$	15	mA	
Reverse voltage	$V_r$	5	V	
Operating temperature	$T_{op}$	70	°C	
Storage Temperature	$T_{stg}$	0 ~ 100	°C	
Reflow Temperature	$T_{ref}$	260	°C	10 sec. 2 mm from case

**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.

TO-56 flat cap VCSEL

Dimensions unit : mm



pin configuration

Number	Function
1	VCSEL anode
2	VCSEL cathode
3	NA
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.

**RayCan**

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