

# RayCan *1550 nm Vertical-Cavity Surface-Emitting Laser*

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## *RT3xxx1-T*

### Description

The RayCan 1550 nm 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
- Standard TO-46/56 package with/without a flat or ball cap

### 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	2.5	4	mA	
Forward voltage	$V_f$		3		V	
Series resistance	$R_s$		100	200	$\Omega$	
Output power	$P_o$	0.7	~ 0.9		mW	
Wavelength	$\lambda$	1510	1550	1580	nm	
Rise and fall time	$t_r$ $t_f$		~ 100 ~ 150		psec	(20%-80%)
Side mode suppression	SMSR	30	35		dB	
Beam divergence	$\theta$	8	10	12	degree	FWHM

### Absolute maximum ratings

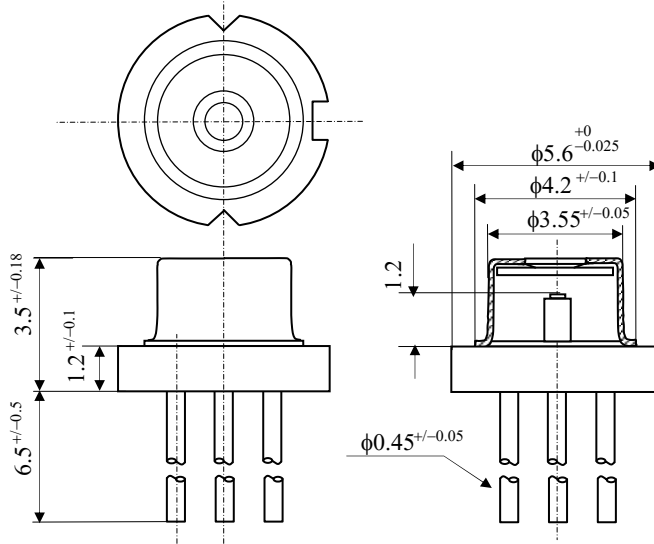
Parameter	Symbol	Rating	Unit	Notes
Forward current	$I_f$	10	mA	
Reverse voltage	$V_r$	5	V	
Operating temperature	$T_{op}$	70	°C	
Storage Temperature	$T_{stg}$	0 ~ 100	°C	
Reflow Temperature	$T_{ref}$	260	°C	10 sec. max

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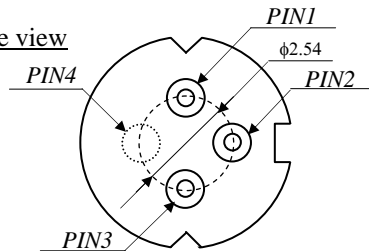
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### TO-56 flat cap VCSEL

Dimensions unit : mm

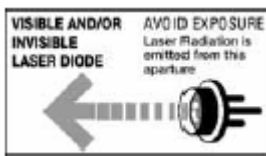


TO package top side view



Pinout

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



### 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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