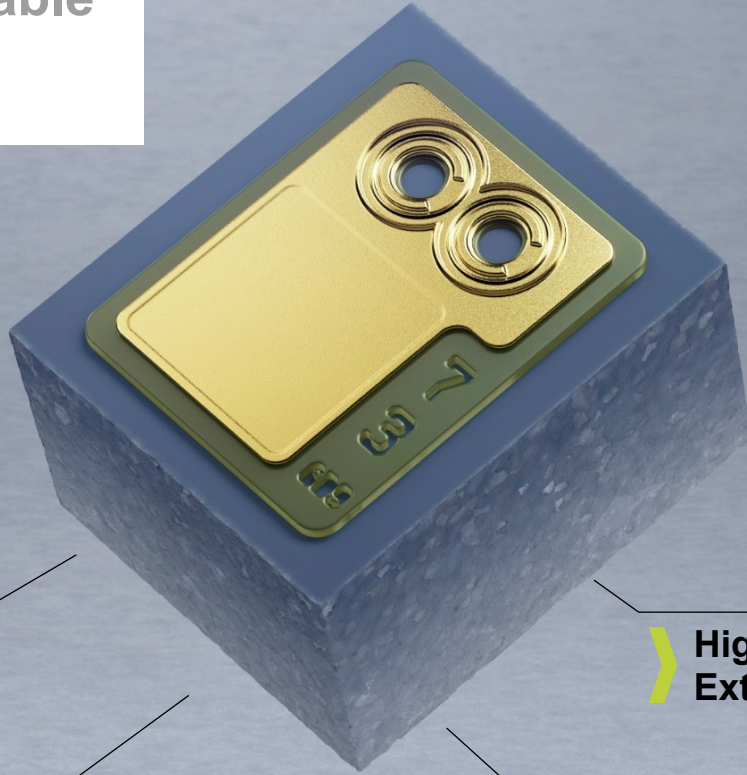


VCSEL

Multi-Mode  
Polarization-Stable  
940 nm



> High Optical  
Output Power

> High Polarization  
Extinction Ratio

> Wide Operating  
Temperature Range

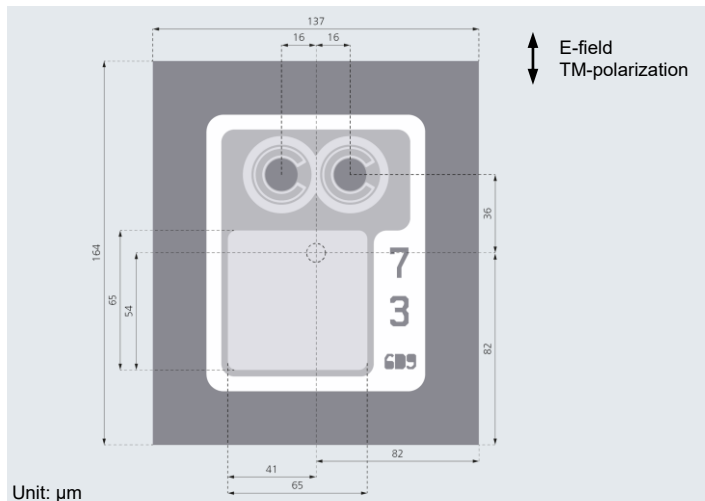
> Passivated Polarization  
Structure

# Datasheet: 940 nm Multi-Mode Polarization-Stable Dual-Emitter VCSEL

Electro-optical characteristics (T = 45°C, I = 8.7 mA, Continuous Wave, unless otherwise stated)

Parameter	Units	Min.	Typ.	Max.	Notes
Emission wavelength	nm	934.2	940.0	946.2	
		930		949	T = -10°C...95°C
Operating current	mA		8.7	16	
Threshold current	mA	0.82		3.6	
Optical output power	mW	5.2	7	8	
		3.8		9.0	T = -10°C...95°C
Slope efficiency	W/A	0.8		1.1	
		0.64		1.3	T = -10°C...95°C
Forward voltage	V			2.2	
				2.3	T = -10°C...95°C
Polarization extinction ratio	dB	17			
Beam divergence $1/e^2$	°	15		22	T = -10°C...95°C

## Dimensions



Type	VCSEL chip
Part number	TVT-008-940-A
Ordering number	
Dimensions	137 $\mu\text{m}$ x 164 $\mu\text{m}$ after dicing

For more information visit  
[www.trumpf.com/s/VCSEL-solutions](http://www.trumpf.com/s/VCSEL-solutions)

### Safety information:

- Invisible laser radiation / avoid beam exposure / class 3B laser product
- Electrostatic sensitive devices / observe precautions for handling