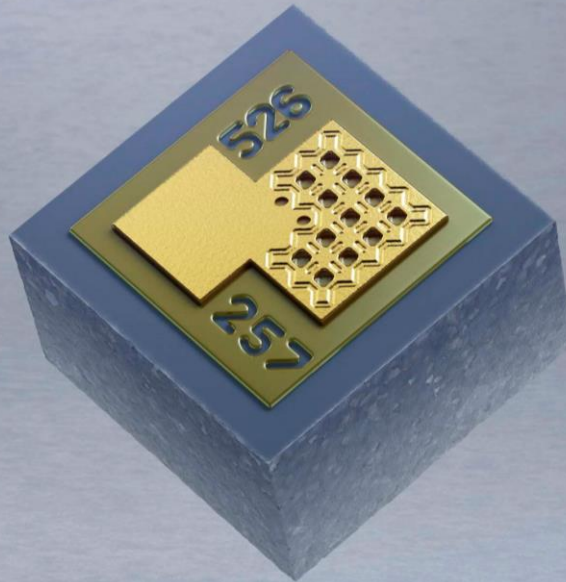


VCSEL

Single-Mode
18 mW
940 nm



> Gaussian Beam Profile

> Time of Flight Proximity Sensing

> 12 Single-Mode Emitters

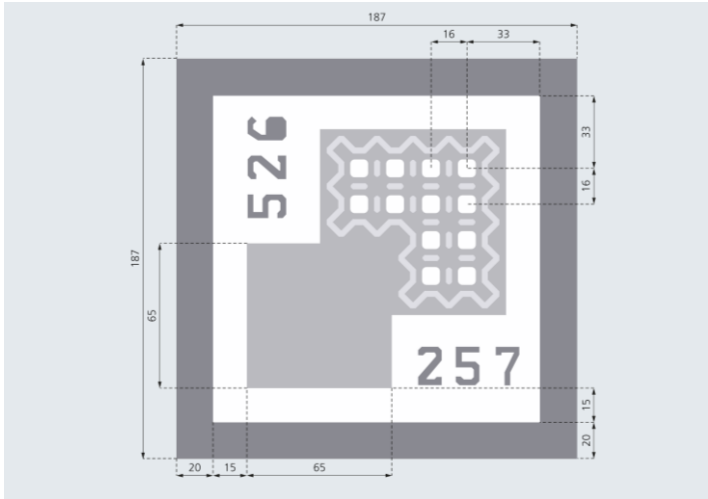
> Camera Auto-Focus

Datasheet: 18 mW 940 nm Single-Mode VCSEL Array

Electro-Optical Characteristics (T = 50°C, pulse width 200 µs, duty cycle 10%, I = 25 mA, unless otherwise stated)

Parameter	Units	Min.	Typ.	Max.	Notes
Operating current	mA		25		pulse width <3 ns duty cycle <20%
Threshold current	mA		3.6	8	T = -10...70°C
Forward voltage	V			2.6	T = -10°C
Peak optical output power	mW	13.5	18	25	T = -10...70°C
Slope efficiency	W/A		0.9		
Peak wavelength	nm	930	940	949	T = -10...70°C
Sidemode suppression ratio	dB	2.5			
Spectral linewidth	nm		0.5	1.75	Full width 1/e ² , T = -10°C...70°C
Beam divergence	deg	12	15	22	Full width 1/e ² , T = -10°C...70°C
Power through 7 mm aperture at 100 mm	mW		2	4.2	T = -10°C...70°C
Rise time (10% to 90%)	ps			100	
Fall time (90% to 10%)	ps			300	

Dimensions



Units: µm

Type	Single chip
Part number	TVT-007-940-B
Ordering number	
Dimensions	187 x 187 x 99 µm

For more information visit
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

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