

# 940nm Multi-Mode VCSEL ARRAY

- QC94V-S-001
- 940nm 9mW (1 emitter )

AUG. 2025 (Ver.1)

## • Application

- 3D sensing
- Proximity sensing
- Auto Focus

## • Features

- High Efficiency and reliability



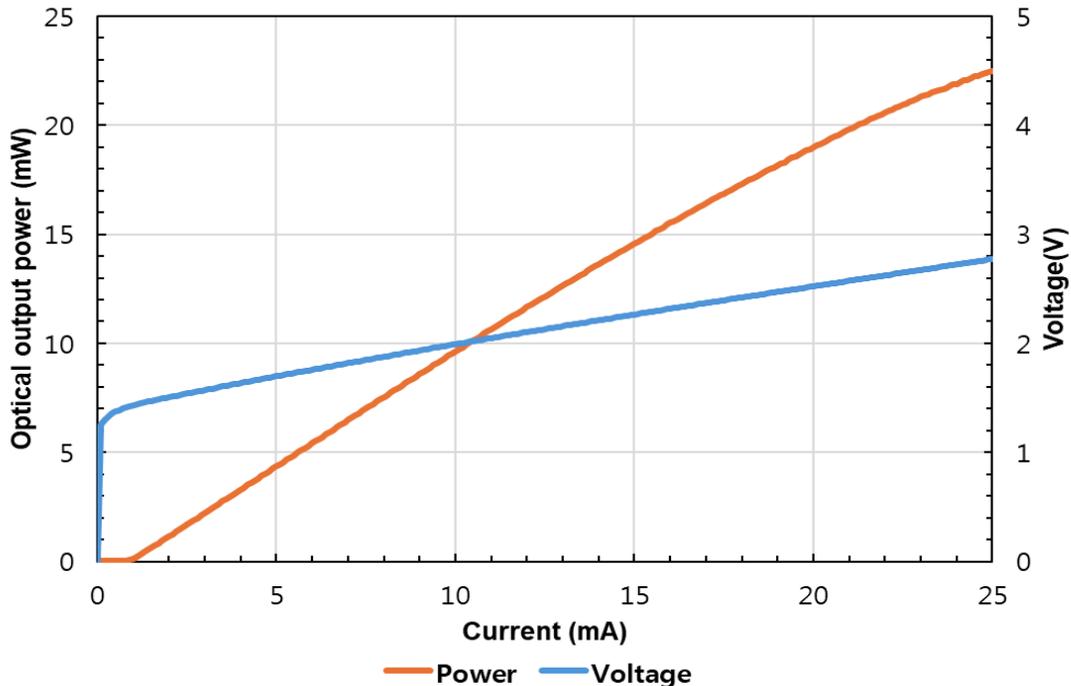
# 940nm Multi-Mode VCSEL Array



## 1. ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C

Item	Symbol	Min	Typ	Max	Unit	Condition
Optical Output Power	$P_{op}$	7	9	10	mW	CW 9mA 25°C
Threshold Current	$I_{th}$	-	1	2	mA	CW 25°C
Operating Current	$I_{op}$	-	9	-	mA	CW 25°C
Operating Voltage	$V_{op}$	1.75	1.9	2.2	V	CW 9mA 25°C
Power conversion Efficiency	PCE	45	50	-	%	CW 9mA 25°C
Wavelength	$\lambda_{peak}$	930	940	950	nm	CW 9mA 25°C
Beam Full Divergence	$\phi$	20	24	28	deg	CW 9mA 25°C
Wavelength coefficient	$d\lambda/dT$		0.07		nm/°C	CW 9mA

## 2. Typical Performance Curves at 25 °C



## 3. Mechanical Characteristics

Parameter	Ratings	units
Number of emitters	1	#
Chip Width	$175 \pm 20$	$\mu\text{m}$
Chip Length	$175 \pm 20$	$\mu\text{m}$
Chip Height	$100 \pm 25$	$\mu\text{m}$
Anode Contact	Emission side, Au surface	
Anode bonding pad	85 x 92	$\mu\text{m} \times \mu\text{m}$
Cathode Contact	Back side, Au surface	

