AlGaAs / GaAs VCSEL Chip ---TK0909V8F

1. Scope

- The specification applies to Fiber optical communication & Active Optical Cable .
- Type : TK0909V8F

2. Structure

- AlGaAs with AlGaAs / GaAs DBR structure—VCSEL Chip.
- P Electrode (anode) : Gold.
- N Electrode (cathode) : Gold.

3. Size

- Chip size : 210 × 960μm
- Thickness : 150 ± 25μm
- Bonding Pad : 70μm
- Pattern drawing : per fig. 1

4. Electro-Optical Characteristics

(T_a = +25 ℃)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Threshold Current	Ith	T=25 °C	--	0.8		mA
Output Power	Pop	If=6 mA	--	2.0	--	mW
Slope Efficiency	η	If=6 mA	--	0.45	--	mW/mA
Operating Voltage	Vop	If=6 mA	--	1.9	--	V
Resistance	Rs	If=6 mA	35	60	85	Ω
Wavelength	λ	If=6 mA	840	850	860	nm
Spectral Bandwidth	Δλ	If=6 mA	--	--	0.5	nm
Beam Divergence	θ	If=6mA Full Width 1/ e^2	20	--	30	deg.
Rise Time (20~80%)	Tr	If=6mA	--	25	--	ps
Fall Time (20~80%)	Tf	If=6mA	--	30	--	ps
Wavelength Tuning over Temp.	--	--	--	0.06	--	nm/K
3dB Bandwidth	f3dB	If=6mA	--	10	--	GHz
Relative Intensity Noise	RIN	10GHz BW , If=6mA	--	--	-128	dB/Hz

☐ TYNTEK Head Office Tel：886-3-5781616 Fax：886-3-5780545
☐ TYNTEK Chunan Branch Tel：886-37-582997 Fax：886-37-582908
http：//www.tyntek.com.tw

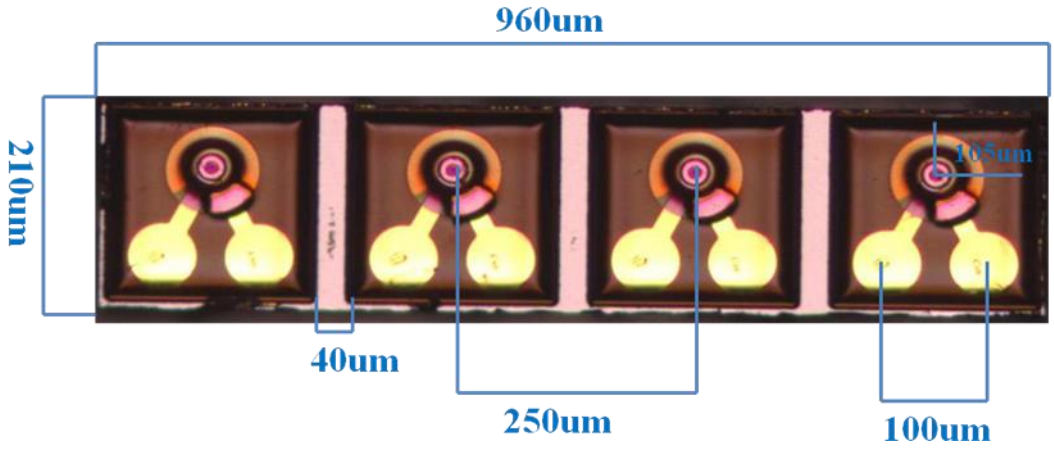
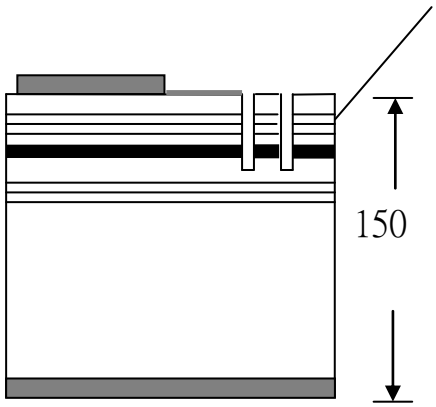


Fig .1

DBR structure



Unit:μ m

Absolute Maximum Rating

Parameter	Min	Max.	Unit
Storage Temperature	-40	100	℃
Operating Temperature	0	85	℃
Continuous Forward Current	--	12	mA
Soldering Temperature	--	260	℃

2016 Apr.