

AlGaAs / GaAs VCSEL Chip ---TK2424VPN

1. Scope

- The specification applies to applies to AlGaAs infrared chips
- Type : TK2424VPN

2. Structure

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

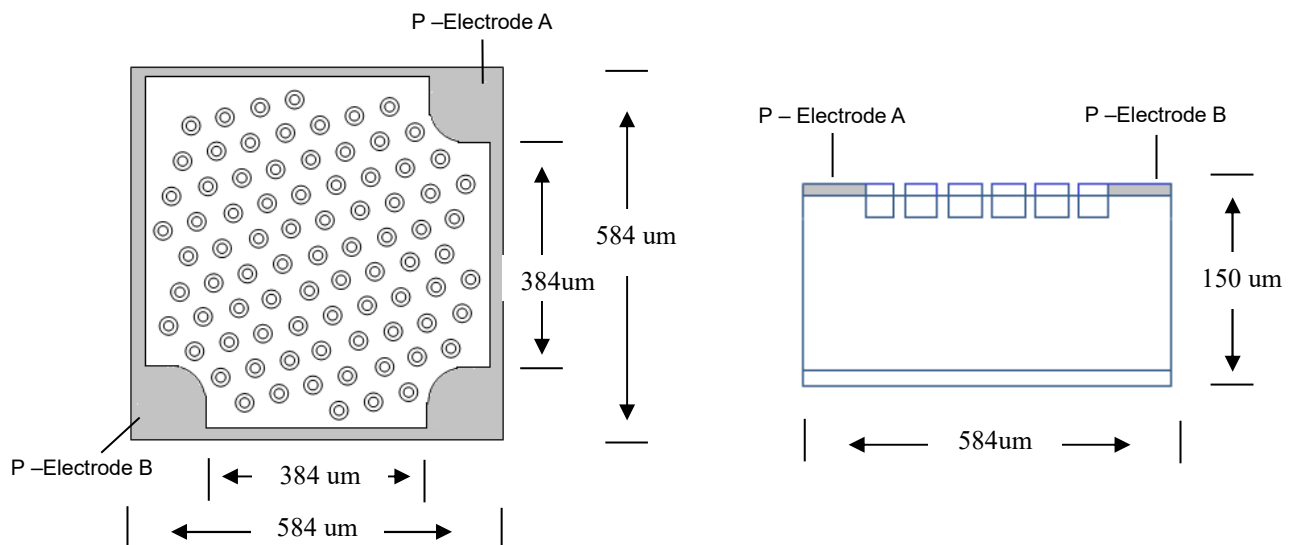
3. Size

- Chip size : $584 \times 584 \mu\text{m} \pm 25 \mu\text{m}$
- Thickness : $150 \mu\text{m} \pm 25 \mu\text{m}$
- Bonding Pad : $100 \mu\text{m}$
- Pattern drawing : per fig. 1

4. Electro-Optical Characteristics

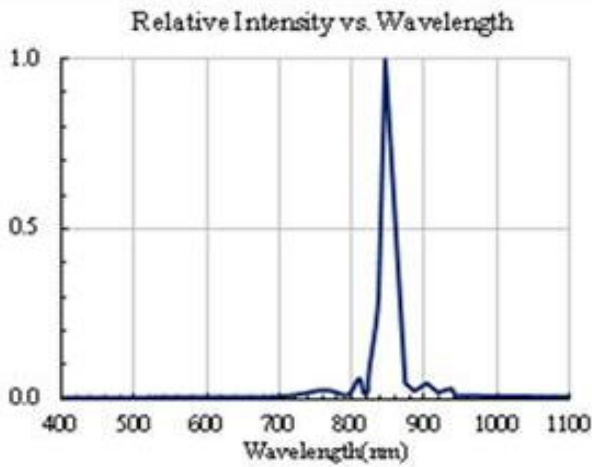
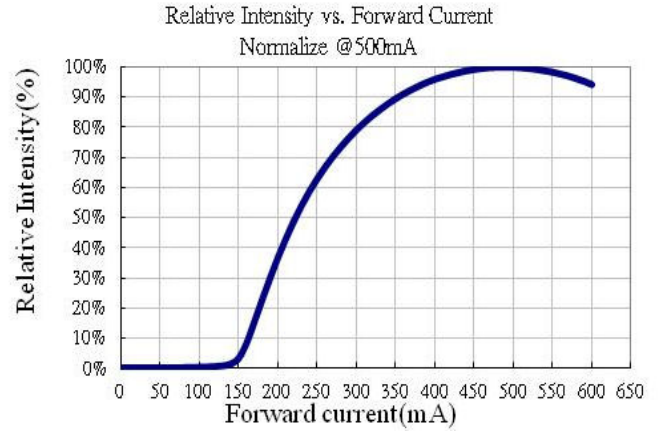
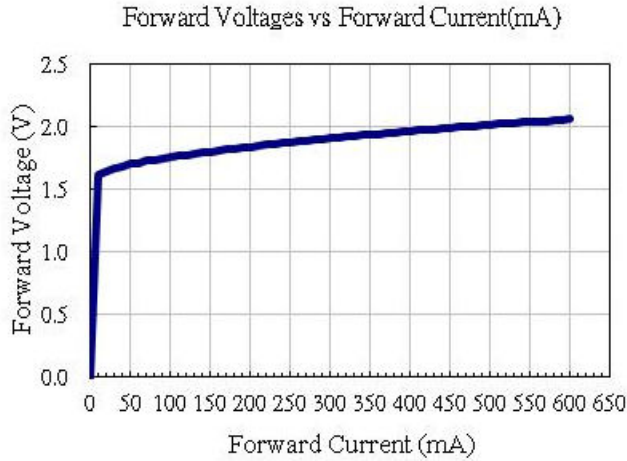
($T_a = +25^\circ\text{C}$)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 350 \text{ mA}$		2.0	2.5	V
Threshold Current	I_{th}	$T = 25^\circ\text{C}$		150	180	mA
Output Power	P_o	$I_F = 350 \text{ mA}$	350	400		mW
Center Wavelength	λ_c	$I_F = 350 \text{ mA}$	835	850	865	nm
Beam Divergence	Θ	$I_F = 350 \text{ mA}$		30		Degree
ESD		HBM		3000		V

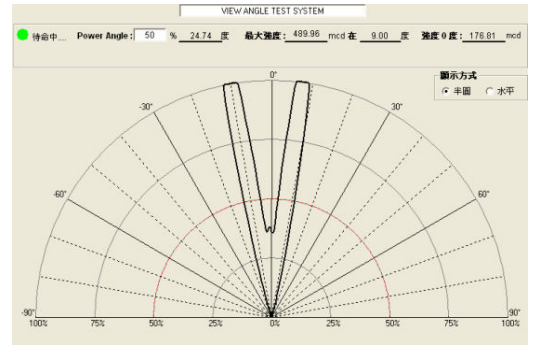


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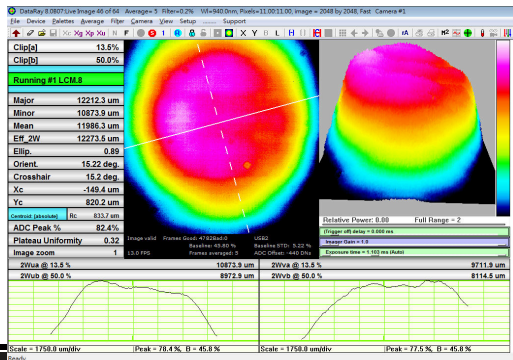
Electro-Optical Characteristics Curve



Half power angle on TO-can, 25°C, 200mA



Emitting Pattern on TO-can, 25°C, 200mA



TYNTEK Head Office
TYNTEK Chunan Branch

<http://www.tyntek.com.tw>

Tel : 886-3-5781616

Tel : 886-37-582997

Fax : 886-3-5780545

Fax : 886-37-582908

E-mail : service@serv.tyntek.com.tw