

LCU80B050Ap

LCU80xx SERIES 5630 LASER DIODE

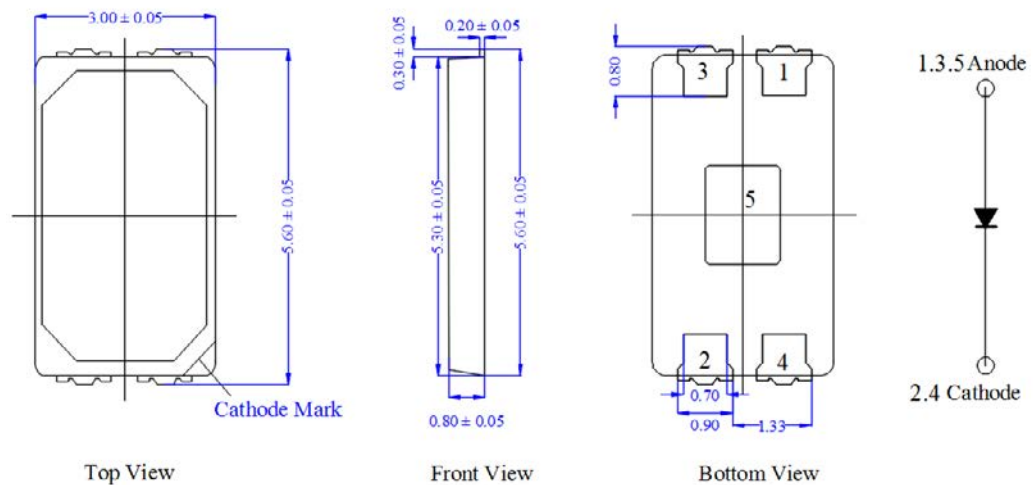
■ Features

1. Peak wavelength at 25°C : 808 nm (typical)
2. Standard optical power output : 200mW (CW)
3. 5630 Packaged
4. High temperature operation

■ Applications

1. Laser Module
2. Laser Pointer
3. Medical application
4. Sensor system
5. Pumping source for DPSS green laser
6. IR lighting

■ External dimensions(Unit : mm) 5.60×3.00×0.80



Notes:

1. Drawings are not to scale
2. All dimensions are all in millimeter
3. All dimensions without tolerance are for reference only

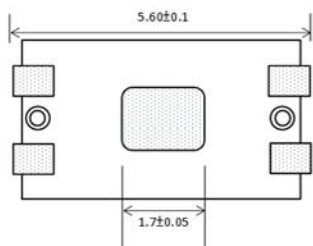
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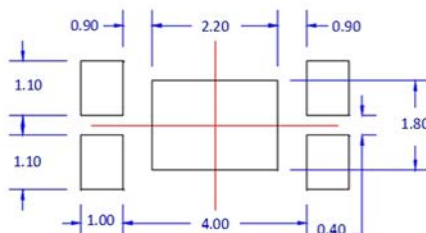
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Soldering Conditions(Reference Outline)

Soldering pad pattern



Metal solder stencil aperture

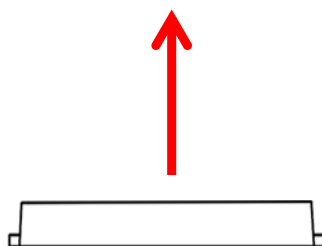


NOTE : All dimensions in mm tolerance is +/- 0.1mm unless otherwise noted.

The drawing above shows the recommended solder pad layout on Printed Circuit Board (PCB).

■ Emission direction

Laser beam



■ Absolute Maximum Ratings(Tc=25°C)

Parameter	Symbol	Rating	Unit
Optical Output	Po	200	mW
Reverse Voltage	Vr	2	V
Operating Temperature (Case)	Top	-10~+50	°C
Storage Temperature	Tstg	-10~+85	°C

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■ Electrical and Optical Characteristics(Tc=25°C)

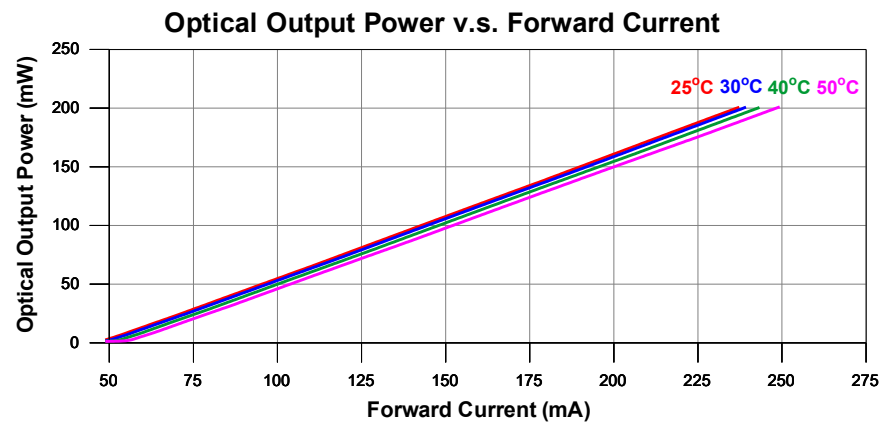
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
Threshold Current	I _{th}	P _o =200mW	-	50	70	mA	
Operating Current	I _{op}	P _o =200mW	-	235	265	mA	
Operating Voltage	V _{op}	P _o =200mW	-	1.8	1.95	Volts	
Slope Efficiency	η	P _o =50-150mW	0.8	1.09	-	mW/mA	
Beam Divergence (FWHM)	Parallel	θ _∥	P _o =200mW		7.5	12	deg.
	Perpendicular	θ _⊥	P _o =200mW		30	40	deg.
Lasing Wavelength	λ	P _o =200mW	805	808	811	nm	

© θ_∥ and θ_⊥ are defined as the angle within which the intensity is 50% of the peak value.

■ Quality Notice

This device is still under product development.

■ Typical characteristic curves

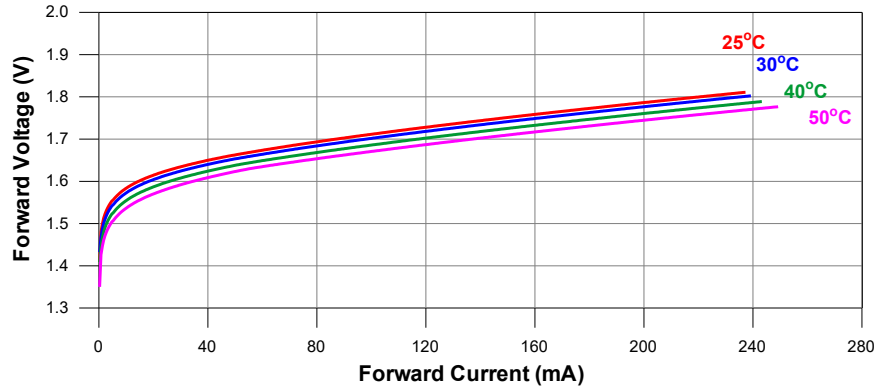


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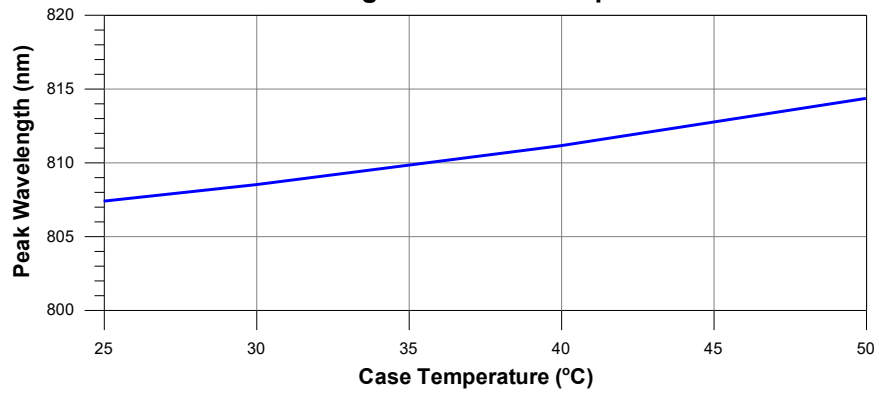
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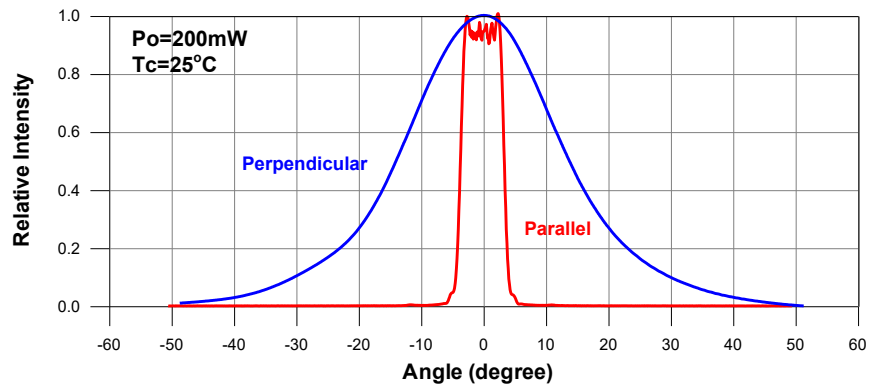
Forward Voltage v.s. Forward Current



Peak Wavelength v.s. Case Temperature



Far-Field Pattern

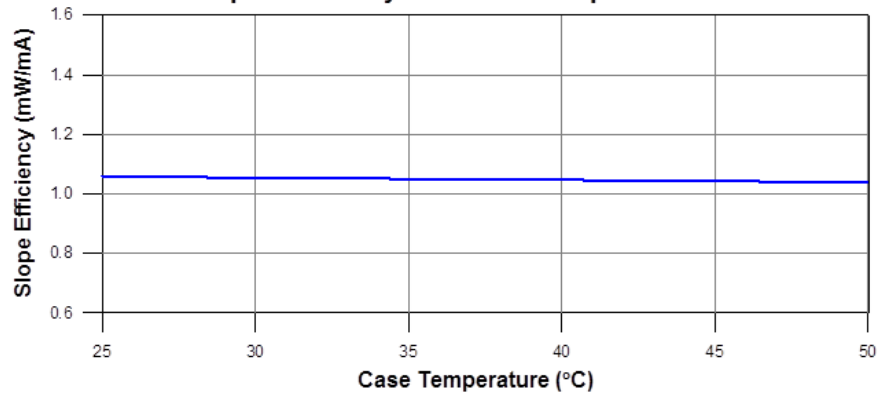


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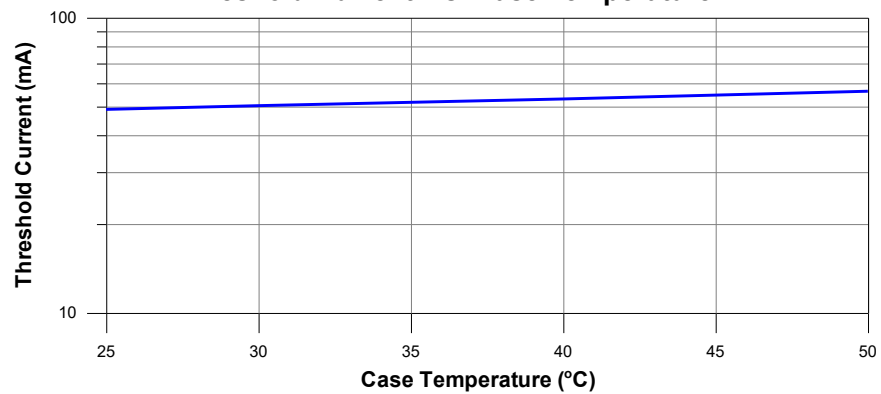
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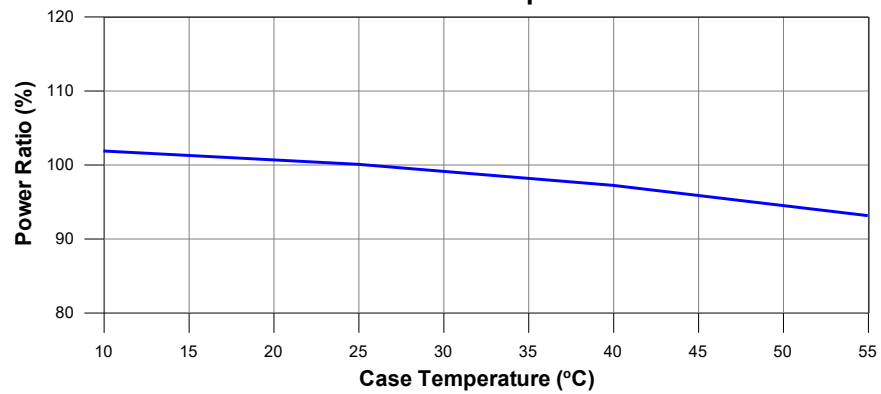
Slope Efficiency v.s. Case Temperature



Threshold Current v.s. Case Temperature



Power v.s. Case Temperature

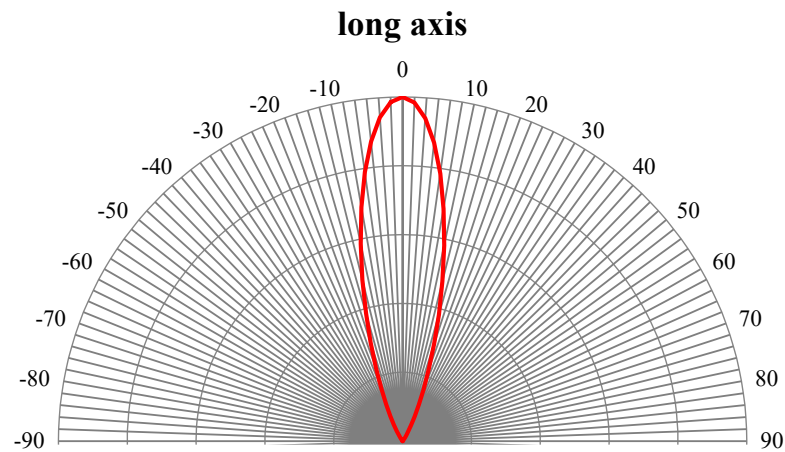
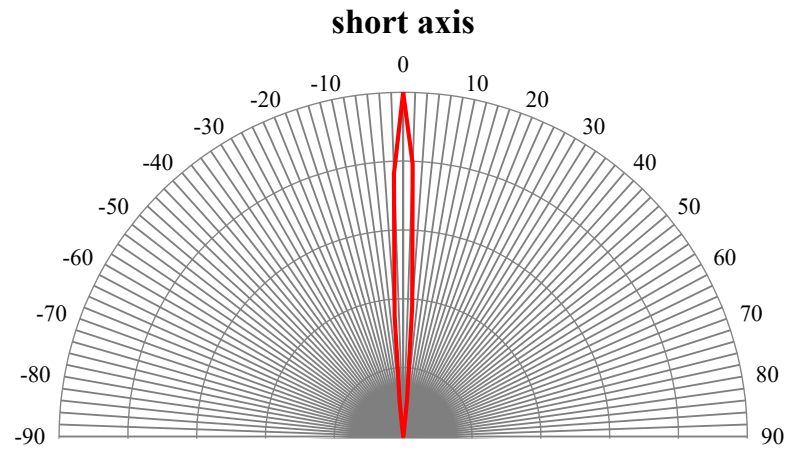


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■ Radiation Pattern in Polar Coordinate System



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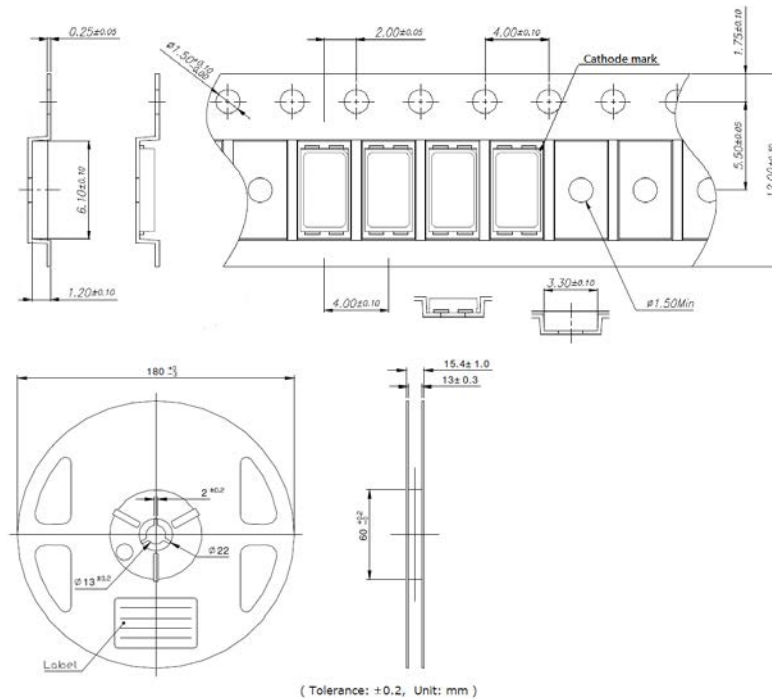
■ Recommend reflow conditions

Low temperature solder is recommended.

Maximum solder profile should be less than 200°C 1min.

■ Packing Information

- Embossed Tape Dimension



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