



## 850nm 120mW VCSEL Diode in 5630 Package

Part No. VC56-850H120A

### Features

- 5630 package
- High conversion efficiency
- High light directivity and good fog permeability
- >120mW 850nm VCSEL @ 200mA



5630 Package

### Applications

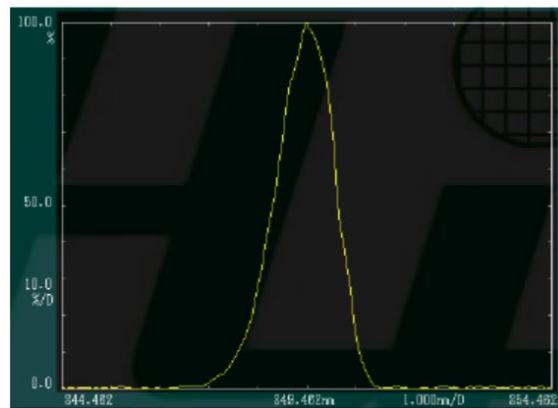
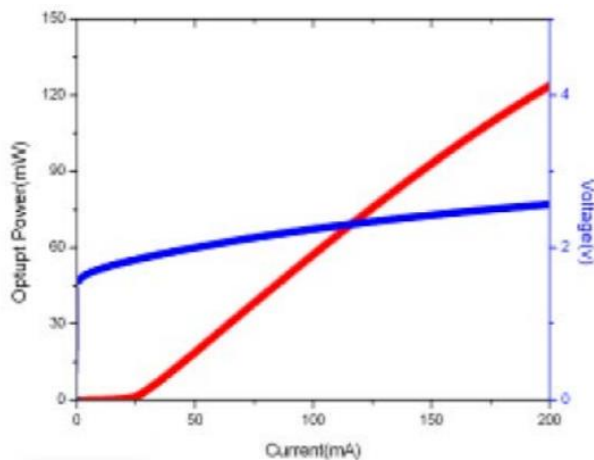
- IR night illumination
- IR sensing

### Specifications

Absolute Maximum Ratings				
Parameters	Symbol	Rating	Unit	Conditions
Case Operating Temperature	Top	-20 to 85	°C	
Storage Temperature	Tstg	-55 to 100	°C	
Lead Soldering Temperature	Tsol	260	°C	<10 seconds
Forward Current	I <sub>F</sub>	200	mA	
Power Dissipation	P <sub>d</sub>	0.56	W	
Junction Temperature	T <sub>J</sub>	≤110	°C	

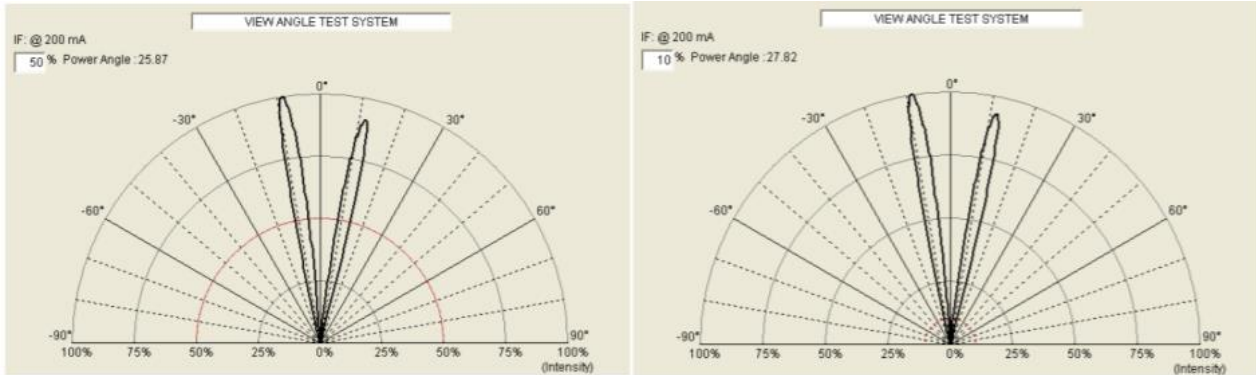
Electro-Optical Characteristics						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Optical Output Power	P <sub>o</sub>	120	125		mW	I <sub>F</sub> =200mA, 25°C, CW
Laser Forward Voltage	V <sub>F</sub>		2.5	2.8	V	I <sub>F</sub> =200mA, 25°C, CW
Wavelength	λ <sub>P</sub>	840	850	860	nm	I <sub>F</sub> =200mA, 25°C, CW
Antistatic Voltage	V <sub>ESD</sub>			4000	V	Human discharge mode

### Typical Characteristics



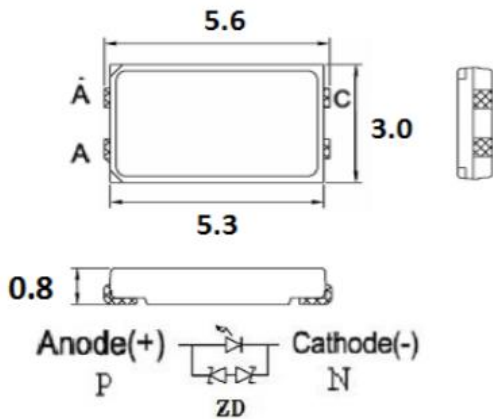


**View Angle**

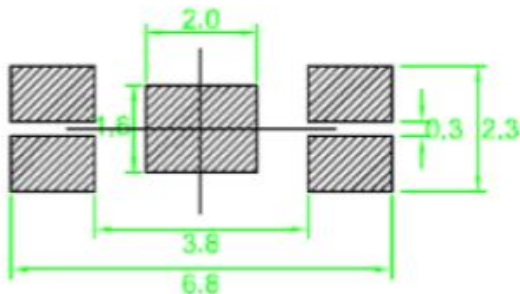


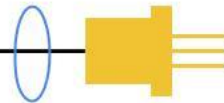
**Outline Dimensions (unit: mm)**

Tolerance: +/-0.1mm unless other specified.



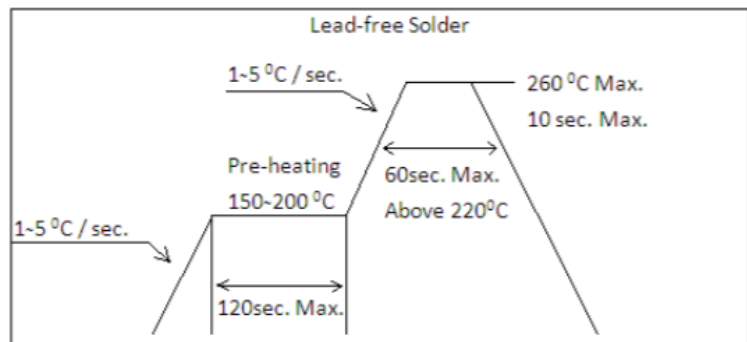
The following soldering patterns are recommended for reflow soldering.





## Solder Reflow Process Parameters

Lead Free Solder	
Pre-heat	150~200 °C
Pre-heat time	120 sec. Max.
Peak-temperature	260 °C Max.
Soldering time Condition	10 sec. Max.



### Notes:

1. Number of reflow process shall be less than 2 times and cooling process to normal temperature is required between first and second soldering process.
2. When soldering, do not put stress on the package during heating.

### Additional Notes

[Warning] The VCSEL is a class IIIb laser in the safety standard ANSI Z136.1 and should be treated as potential eye hazard.

Note: Specifications are subject to change without notice.