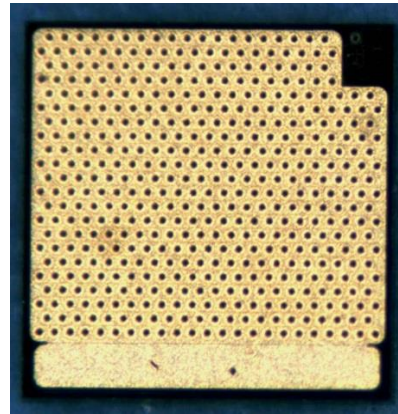




**Features**

- : 850nm wavelength range
- : > 2W Peak VCSEL by pulse mode operation
- : Multi mode beam profile
- : High reliability
- : Other configurations available on request

**Description**



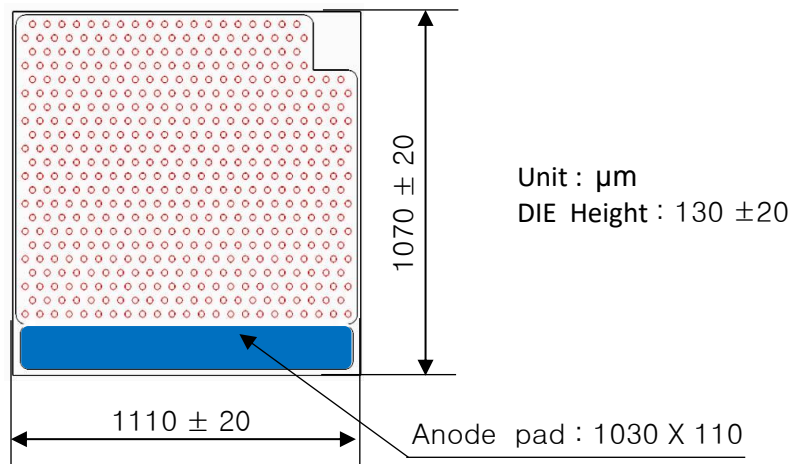
**Applications**

- : Consumer electronics
- : Safety sensor
- : Illumination light source
- : Gesture sensor light source

**Absolute Maximum Ratings**

| Parameter                  | Rating            |
|----------------------------|-------------------|
| Storage Temperature        | -40 to 85 °C      |
| Operating Temperature      | -20 to 85 °C      |
| Continuous Forward Current | 4.5 A(max 10 sec) |
| Continuous Reverse Voltage | 5 V(max 10 sec)   |

**Dimensions**



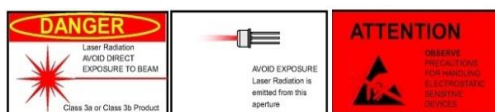


▶ Electro-Optics Characteristics ( 10% duty cycle, pulse length =0.1ms,  $T_a=60^\circ\text{C}$  unless otherwise stated)

| Parameters                  | Symbol           | Specified |      |      | Unit | Test Conditions  |
|-----------------------------|------------------|-----------|------|------|------|--|
|                             |                  | Min.      | Typ. | Max. |      |  |
| Threshold Current           | $I_{th}$         |           | 0.6  |      | A    | CW   |
| Peak Optical Output Power   | $P_o$            |           | 2    |      | W    | $I_f = 3 \text{ A}$                                    |
| Operating Voltage           | $V_f$            |           | 2.1  |      | V    | $I_f = 3 \text{ A}$                                    |
| Power Conversion Efficiency | PCE              |           | 30   |      | %    | $I_f = 3 \text{ A}$                                    |
| Peak Wavelength             | $\lambda_p$      | 840       | 850  | 860  | nm   | $I_f = 3 \text{ A}$                                    |
| Spectral Bandwidth (RMS)    | $\Delta \lambda$ |           | 2.0  |      | nm   | $I_f = 3 \text{ A}$                                    |
| Beam Divergence             | $\Theta$         |           | 22   |      | °    | $I_f = 3 \text{ A}$ (Full Width, $1/e^2$ ), Room temp. |
| ESD Voltage                 | $V_{ESD}$        | 5000      |      |      |      | HBM mode, Room temp.                                   |

▶ Notes

\* These specifications are subject to change without notice.

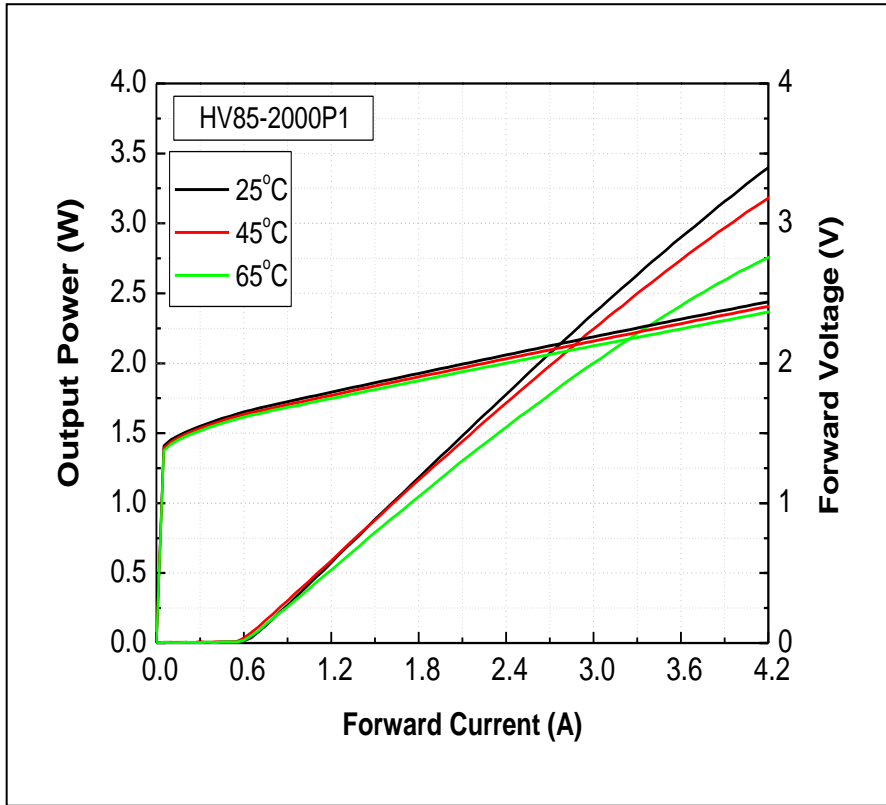


|               |  |
|---------------|--|
| <b>NOTICE</b> | The inherent design of this component causes it to be sensitive to electrostatic discharge(ESD). To prevent ESD-induced damage and/or degradation to equipment, take normal ESD precautions when handling this product                                 |
| <b>DANGER</b> | The VCSEL is a class IIIb laser and should be treated as a potential eye hazard. Due to the size of the component, the applicable warning logotype, aperture label, and certification / identification label cannot be placed on the component itself. |



Characteristics Curves

L-I-V-Temperature



Power Conversion Efficiency

