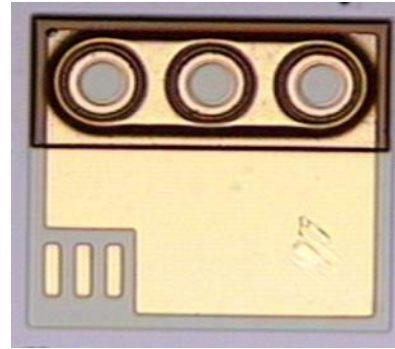


**Features**

- : 940nm wavelength range
- : 15mW VCSEL
- : Multi\_mode beam profile
- : High reliability
- : Other configurations available on request

**Description**



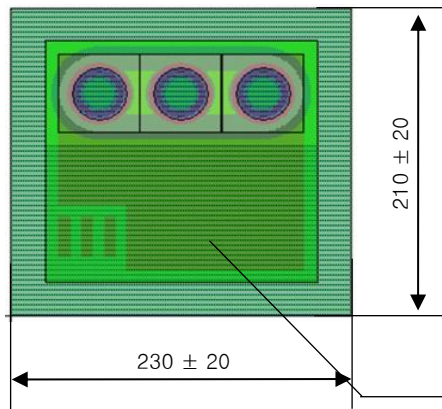
**Applications**

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

**Absolute Maximum Ratings**

Parameter	Rating
Storage Temperature	-40 to 85 °C
Operating Temperature	-10 to 70 °C
Continuous Forward Current	30mA

**Dimensions**



Unit :  $\mu\text{m}$   
 DIE Height :  $150 \pm 15 \mu\text{m}$

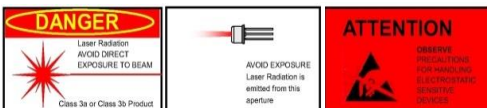
Anode pad ,  $120 \times 90 \mu\text{m}^2$

Electro-Optics Characteristics (  $T_a=25^\circ\text{C}$  unless otherwise stated)

Parameters	Symbol	Specified			Unit	Test Conditions
		Min.	Typ.	Max.		
Threshold Current	$I_{th}$		9.0		mA	CW
$I_{th}$ Temperature Variation	$\Delta I_{th}$		3.0		mA	$T_a = -10$ to $70^\circ\text{C}$
Slope Efficiency	$\eta$		1.0		W/A	$I_f = 23$ mA
$\eta$ Temperature Variation	$\Delta \eta / \Delta T$		-0.5		% / $^\circ\text{C}$	$T_a = -10$ to $70^\circ\text{C}$ at 20mA
Optical Output Power	$P_o$		15		mW	$I_f = 23$ mA
Peak Wavelength	$\lambda_p$	930	940	950	nm	$I_f = 23$ mA
$\lambda$ Temperature Variation	$\Delta \lambda / \Delta T$		0.06		nm / $^\circ\text{C}$	$T_a = -10$ to $70^\circ\text{C}$ at 23mA
Spectral Bandwidth (RMS)	$\Delta \lambda$			2	nm	$I_f = 23$ mA
Beam Divergence	$\Theta$		18		$^\circ$	$P_o = 15$ mW (FWHM)
Operating Voltage	$V_f$		1.8	2.2	V	$I_f = 23$ mA
Breakdown Voltage	$V_b$	-10			V	
Dynamic Resistance	$R_d$		18		Ohm	$I_f = 23$ mA

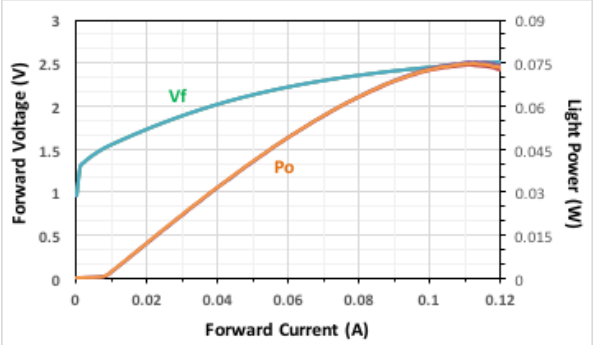
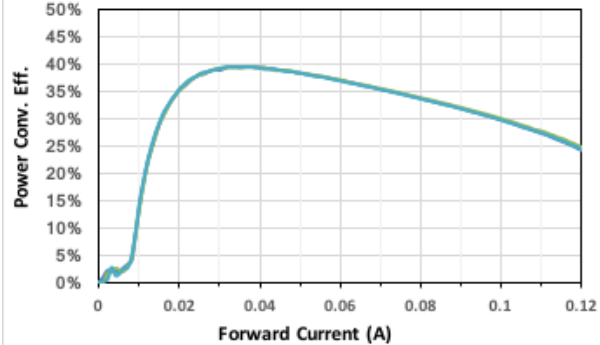
Notes

\* 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

LIV Curve	Power conversion efficiency
 <p>Test PKG sample : To-Can type, To-46            Test condition :            CW Mode : IF step interval 1.0mA, Delay time 2msec</p>	 <p>Test PKG sample : To-Can type, To-46            Test condition :            CW Mode : IF step interval 1.0mA, Delay time 2msec</p>