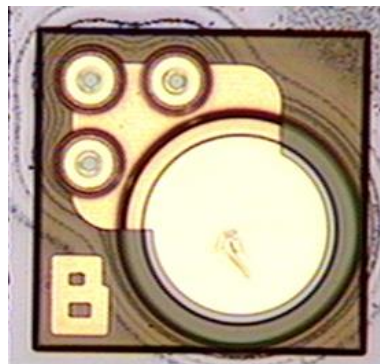




**Features**

- : 850nm wavelength range
- : 8mW VCSEL
- : Gaussian beam profile
- : Multiple mesa type
- : High reliability
- : Other configurations available on request

**Description**



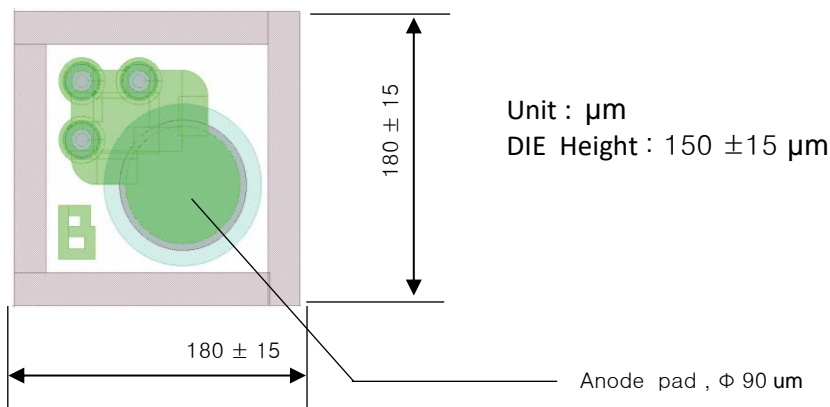
**Applications**

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

**Absolute Maximum Ratings**

Parameter	Rating
Storage Temperature	-40 to 85 °C
Operating Temperature	-10 to 60 °C
Continuous Forward Current	15mA

**Dimensions**





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

Parameters	Symbol	Specified			Unit	Test Conditions
		Min.	Typ.	Max.		
Threshold Current	$I_{th}$		2.0		mA	CW
$I_{th}$ Temperature Variation	$\Delta I_{th}$		1.0		mA	$T_a = -10$ to $70^{\circ}\text{C}$
Slope Efficiency	$\eta$		1.0		W/A	$I_f = 10$ mA
Optical Output Power	$P_o$		8		mW	$I_f = 10$ mA
Peak Wavelength	$\lambda_p$	840	850	860	nm	$I_f = 10$ mA
$\lambda$ Temperature Variation	$\Delta \lambda / \Delta T$		0.06		nm/ $^{\circ}\text{C}$	$T_a = -10$ to $70^{\circ}\text{C}$ at 10mA
Beam Divergence	$\Theta$		13		$^{\circ}$	$P_o = 8$ mW (FWHM)
Operating Voltage	$V_f$		2.1	2.4	V	$I_f = 10$ mA
Breakdown Voltage	$V_b$	-10			V	
Dynamic Resistance	$R_d$		35		Ohm	$I_f = 10$ mA

Notes

\* These specifications are subject to change without notice.

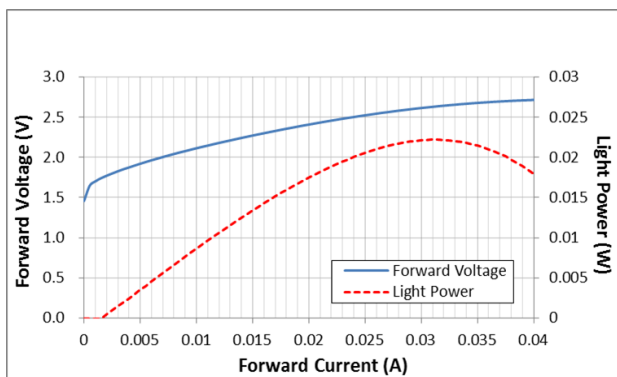


<b>NOTICE</b>	The inherent design of this component causes it to be sensitive to electrostatic discharge(ESD). To prevent ESD-induced damage and/or degradation to equipment, take normal ESD precautions when handling this product
<b>DANGER</b>	The VCSEL is a class IIIb laser and should be treated as a 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.



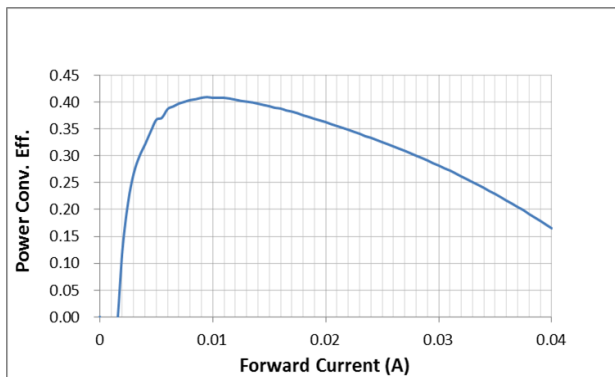
Characteristics Curves

LIV Curve



Test PKG sample : To-Can type, To-46  
 Test condition :  
 CW Mode : IF step interval 2mA, Delay time 2msec

Power conversion efficiency



Test PKG sample : To-Can type, To-46  
 Test condition :  
 CW Mode : IF step interval 2mA, Delay time 2msec