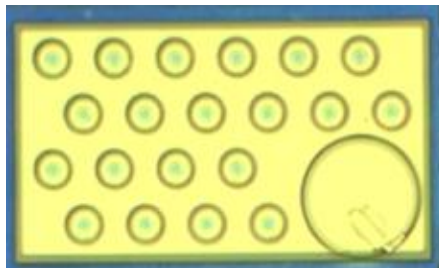


Features

- : 850nm wavelength range
- : 30mW VCSEL
- : Gaussian beam profile
- : Multiple mesa type
- : High reliability
- : Other configurations available on request

Description



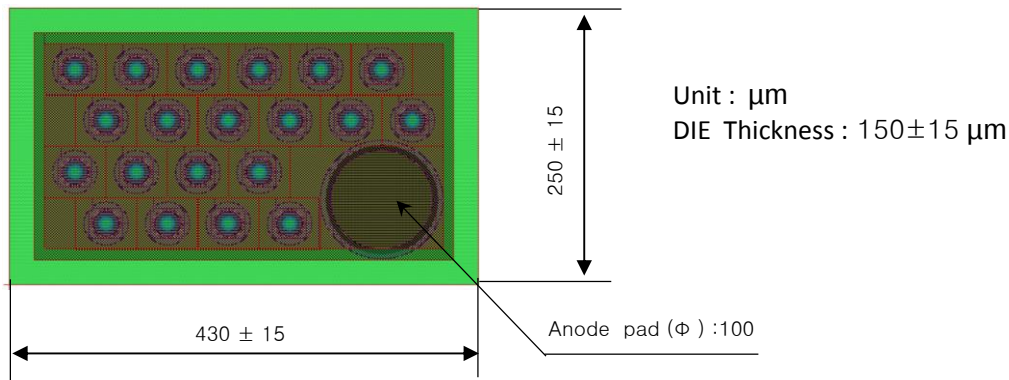
Applications

- : 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 60 °C
Continuous Forward Current	50mA

Dimensions

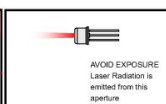


**Electro-Optics Characteristics ($T_a=25^{\circ}\text{C}$ unless otherwise stated)**

Parameters	Symbol	Specified			Unit	Test Conditions
		Min.	Typ.	Max.		
Threshold Current	I_{th}		8.0		mA	CW
I_{th} Temperature Variation	ΔI_{th}		3.0		mA	$T_a = -10$ to 60°C
Slope Efficiency	η		1.0		W/A	$I_f = 40$ mA
Optical Output Power	P_o		30		mW	$I_f = 40$ mA
Peak Wavelength	λ_p	840	850	860	nm	$I_f = 40$ mA
λ Temperature Variation	$\Delta \lambda / \Delta T$		0.06		nm/ $^{\circ}\text{C}$	$T_a = -10$ to 60°C at 40mA
Beam Divergence	Θ		11		$^{\circ}$	$I_f = 40$ mA (FWHM)
Operating Voltage	V_f		1.9		V	$I_f = 40$ mA
Breakdown Voltage	V_b	-9			V	
Dynamic Resistance	R_d		7		Ohm	$I_f = 40$ mA

Notes

* These specifications are subject to change without notice.

**NOTICE**

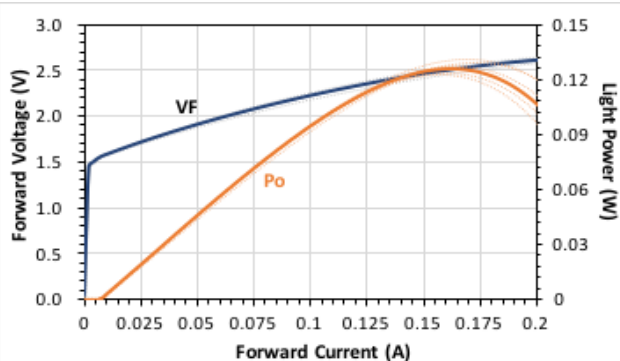
The inherent design of this component causes it to be sensitive to electrostatic discharge(ESD). To prevent ESD-induced damage and/or degradation to equipment, take normal ESD precautions when handling this product

DANGER

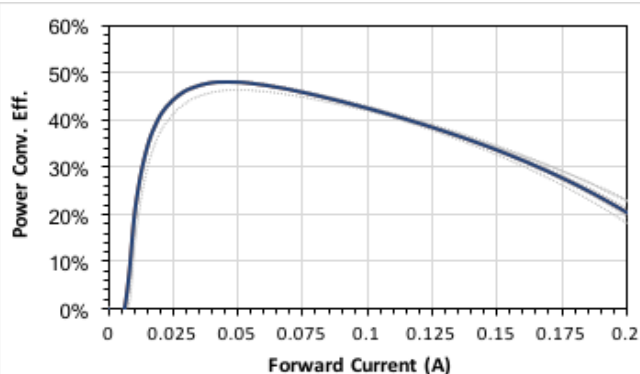
The VCSEL is a class IIb laser and should be treated as a potential eye hazard. Due to the size of the component, the applicable warning logotype, aperture label, and certification / identification label cannot be placed on the component itself.

Characteristics Curves

LIV Curve



Power conversion efficiency



Test PKG sample : To-Can type, To-46

Test condition :

CW Mode : IF step interval 2mA, Delay time 2msec

Test PKG sample : To-Can type, To-46

Test condition :

CW Mode : IF step interval 2mA, Delay time 2msec

FFP

