HV85-0010M1 Pre 1.0

10mW 850 nm VCSEL Chip

Features

: 850nm wavelength range
: 10mW VCSEL
: Multi_mode beam profile
: Multiple mesa type
: High reliability
: Other configurations available on request

Description

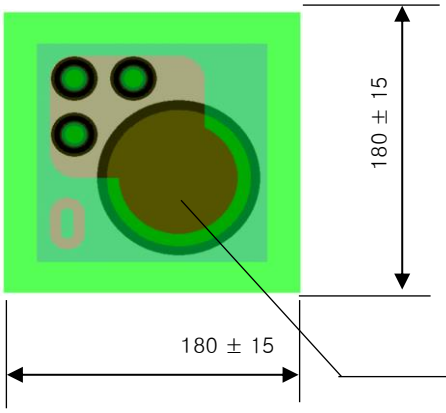
Applications

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

Absolute Maximum Ratings

Parameter	Rating
Storage Temperature	-40 to 85 ℃
Operating Temperature	-10 to 60 ℃
Continuous Forward Current	20mA

Dimensions



Unit : μm
DIE Height : 150 ±15 μm

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Electro-Optics Characteristics (T_a=25℃ unless otherwise stated)

Parameters	Symbol	Specified			Unit	Test Conditions
		Min.	Typ.	Max.		
Threshold Current	I_{th}		3.0		mA	CW
I_{th} Temperature Variation	ΔI_{th}		2.0		mA	T_a= -10 to 70 ℃
Slope Efficiency	η		1.0		W/A	I_f = 13 mA
Optical Output Power	P_o		10		mW	I_f = 13 mA
Peak Wavelength	λ_P	840	850	860	nm	I_f = 13 mA
λ Temperature Varation	Δ λ / ΔT		0.06		nm/ ^oC	T_a= -10 to 70 ℃ at 13mA
Beam Divergence	Θ		20		°	Po = 10 mW (FWHM)
Operating Voltage	V_f		2.2	2.5	V	I_f = 13 mA
Breakdown Voltage	V_b	-10			V	
Dynamic Resistance	R_d		30		Ohm	I_f = 13 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 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.

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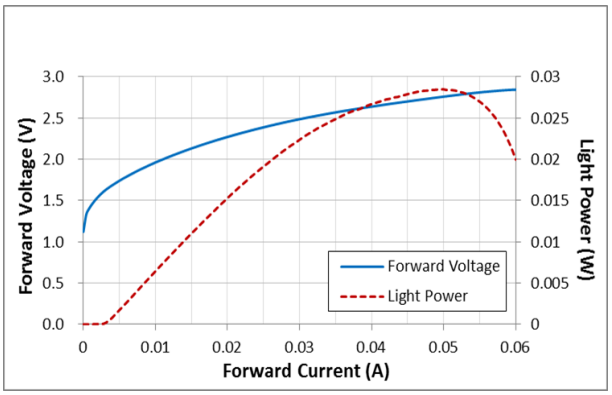
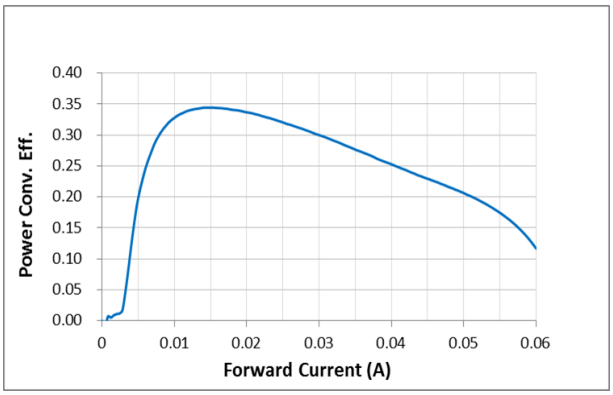
Characteristics Curves

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**

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