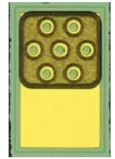




850nm 25mW VCSEL Chip

VCC-85A25H



Features

- 850nm multi-emitter VCSEL chip
- Output power: 25mW
- Multimode beam profile
- High reliability

Applications

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

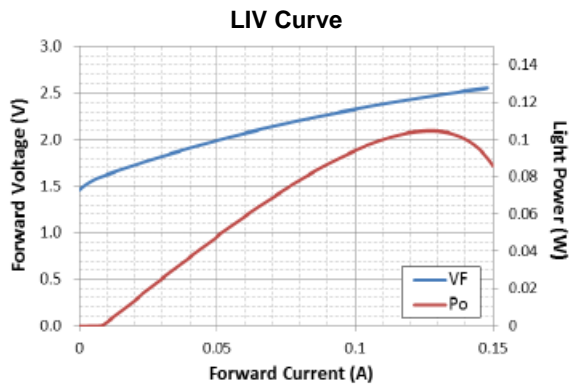
Specifications

Absolute Maximum Ratings				
Parameters	Min.	Max.	Unit	Conditions
Storage Temperature	-40	85	°C	
Operating Temperature	-10	70	°C	
Continuous Forward Current		40	mA	

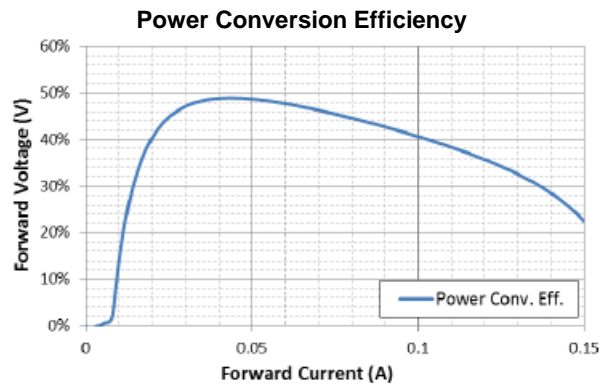
Electro-Optical Characteristics (T _a =25°C unless otherwise stated)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Threshold Current	I _{th}		7.0		mA	CW
Slope Efficiency	η		1.0		W/A	I _f =30mA
Optical Output Power	P _o		23		mW	I _f =30mA
Peak Wavelength	λ _p	840	850	860	nm	I _f =30mA
Beam Divergence	θ		20		°	I _f =30mA (FWHM)
Operating Voltage	V _f		1.9	2.3	V	I _f =30mA
Breakdown Voltage	V _b	-10			V	
Dynamic Resistance	R _d		10		Ohm	I _f =30mA

Thermal Characteristics						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
I _{th} Temperature Variation	ΔI _{th}		3.0		mA	T _a =-10 to 70°C
λ Temperature Coefficient	Δλ/ΔT		0.06		nm/°C	T _a =-10 to 70°C, I _f =30mA
η Temperature Variation	Δη/ΔT		-0.5		%/°C	T _a =-10 to 70°C, I _f =30mA

Typical Characteristics

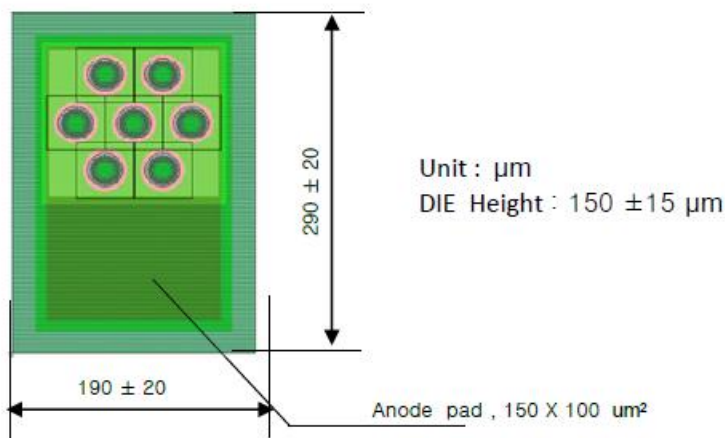


Test PKG sample: TO-can type, TO-46
 Test condition: CW: IF step interval 1.5mA, Delay time 2msec



Test PKG sample: TO-can type, TO-46
 Test condition: CW: IF step interval 1.5mA, Delay time 2msec

Outline Dimensions



Additional Notes

- 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.
- Specifications are subject to change without notice.