

# PH85-F1P0U4

## 850nm High power VCSEL TO-46 Can Package

### Features

- : 20mW High power VCSEL
- : High reliability
- : 850nm wavelength range
- : Flat window Type TO-46 Can Package
- : Other configurations available on request

### Applications

- : Free Space Optics
- : Sensor

### Description



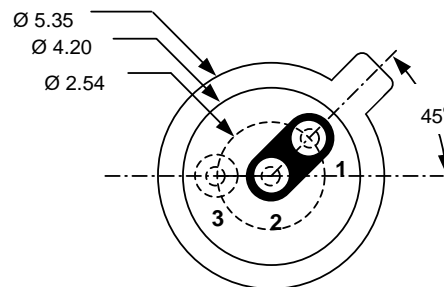
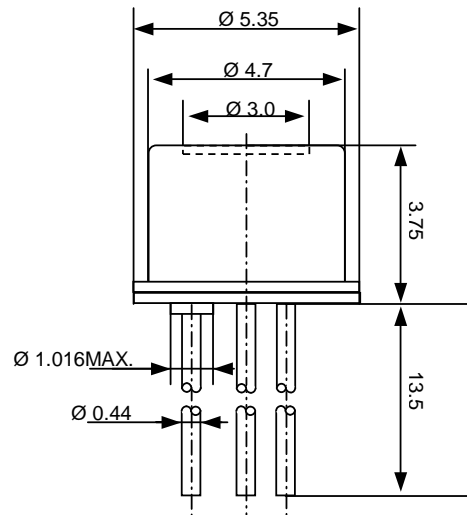
### Absolute Maximum Ratings

Parameter	Rating
Storage Temperature	-40 to 100 °C
Operating Temperature	0 to 60 °C
Lead Solder Temperature	260 °C, 10 sec
Continuous Forward Current	70 mA
Continuous Reverse Voltage	5V (@10µA)

# PH85-F1P0U4

850nm High power VCSEL TO-46 Can Package

## Dimensions



Bottom view

### PINOUT

Number	Function
1	$A_{LD}$
2	$K_{LD}$
3	NC

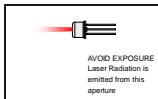
Unit:mm

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

Parameters	Symbol	Specified			Unit	Test Conditions
		Min.	Typ.	Max.		
Threshold Current	$I_{th}$		15		mA	CW
$I_{th}$ Temperature Variation	$\Delta I_{th}$		10		mA	$T_a=0$ to $60^{\circ}\text{C}$
Slope Efficiency	$\eta$	0.2	0.4		W/A	$I_f = 50\text{mA}$
$\eta$ Temperature Variation	$\Delta\eta / \Delta T$		-0.5		%/ $^{\circ}\text{C}$	$T_a=0$ to $60^{\circ}\text{C}$ at $50\text{mA}$
Optical Output Power	$P_o$		<b>20</b>		mW	$I_f = 50\text{mA}$
Peak Wavelength	$\lambda$	840	850	860	nm	$I_f = 50\text{mA}$
$\lambda$ Temperature Variation	$\Delta\lambda / \Delta T$		0.06			$T_a=0$ to $60^{\circ}\text{C}$ at $50\text{mA}$
Spectral Bandwidth (RMS)	$\Delta\lambda$			0.85	nm	$I_f = 50\text{mA}$
Operating Voltage	$V_f$		2.1	2.6	V	$I_f = 50\text{mA}$
Breakdown Voltage	$V_b$		-10		V	
Dynamic Resistance	$R_d$		10	20	Ohm	$I_f = 50\text{mA}$

### 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.

