

# 850nm VCSELs KLD085VC-LTH32

## ■ Features

- VCSEL ( Vertical Cavity Surface Emitting Laser Diode)
- LC-TOSA type is provided
- Output power: 1mW
- Bandwidth: 4GHz
- Monitoring photodiode is built in



## ■ Applications

- Short range high-data-rate transmission systems

## ■ Specifications

### ⌵ Absolute Maximum Ratings

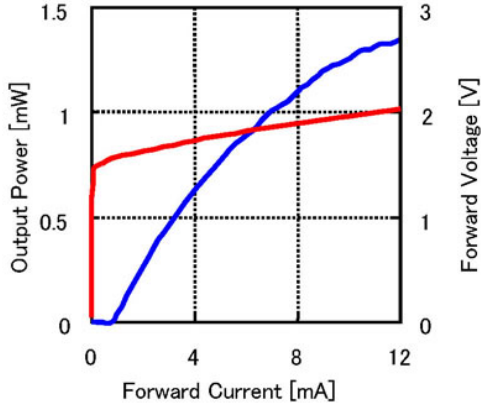
Parameter	Symbol	Value	Unit	Conditions
LD forward current	$I_F$	12	mA	
LD reverse voltage	$V_R$	5	V	
PD forward current	$I_F$	10	mA	
PD reverse voltage	$V_R$	15	V	
Operating temperature	$T_{opr}$	0 to +85		
Storage temperature	$T_{stg}$	0 to +85		

### ⌵ Electrical and Optical characteristics

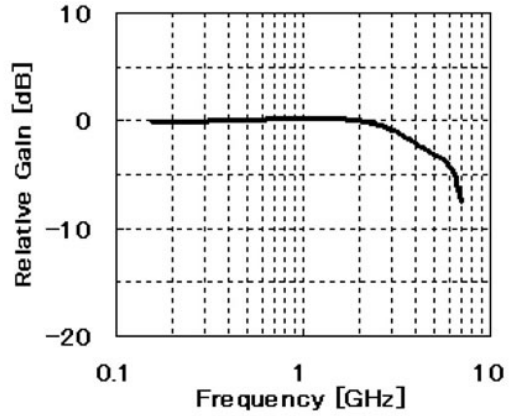
Parameter	Symbol	Value			Unit	Conditions
		Min.	Typ.	Max		
Forward voltage	$I_D$		1.9		V	CW, $I_F=7mA$
Threshold current	$I_{th}$		1.0	1.4	mA	CW
Optical output power	$P_O$	0.6	1.0		mW	CW, $I_F=7mA$
Slope efficiency			0.1		mW/mA	CW, $I_F=7mA$
Peak wavelength		840	850( p)	860	nm	p=Peak wavelength, CW, $I_F=7mA$
Spectral width				0.85	nm	CW, $I_F=7mA$
Bandwidth	BW		4		GHz	$P_O=1.0mW$
PD monitor current	IM		20		$\mu A$	CW, $I_F=7mA$ , $V_{RPD}=5V$
PD dark current	$I_D$		0.1		nA	$V_{RPD}=5V$
PD total capacitance	$C_t$		50	60	pF	$V_{RPD}=5V$ , $f=1MHz$

Parameter	Symbol	Value			Unit	Conditions
		Min.	Typ.	Max		

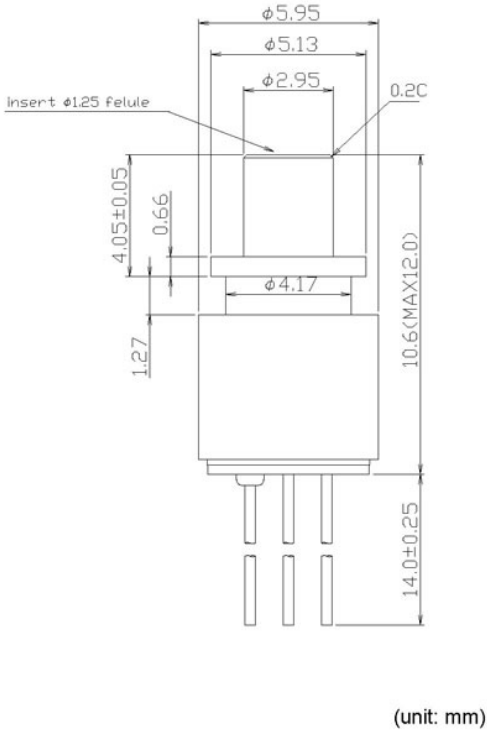
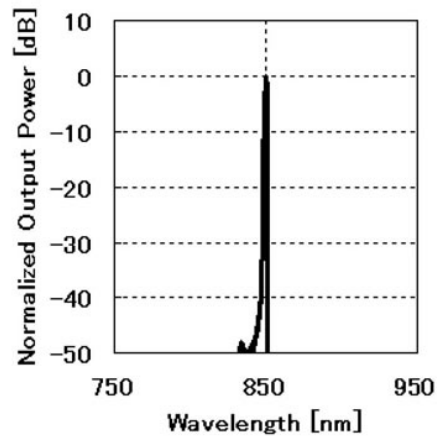
I-L I-V Characteristics



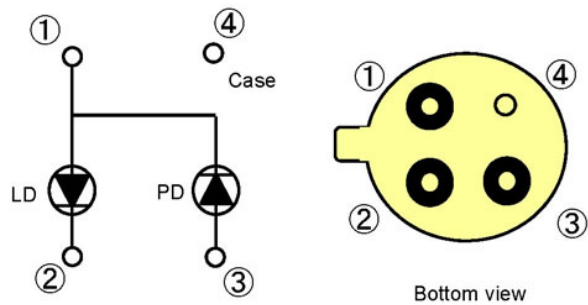
Frequency Response



Wavelength Characteristics



Pin Assignment



Specifications are subject to change without notice.