

850nm

C-85-001-G-B

C-85-001-G-BB

HIGH SPEED 850nm VCSEL (Preliminary)**Features**

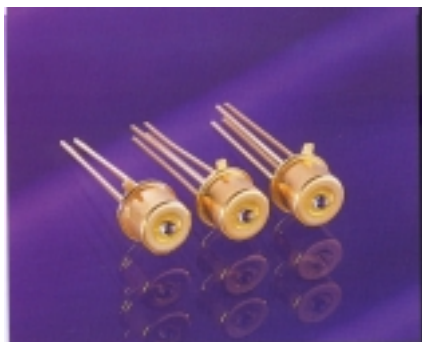
- High speed (>1GHz) operation obtainable at low currents < 15mA
- Integrated ball lens for fiber optic coupling
- Built-in monitor photodiode for power control
- Low temperature dependence of electrical-optical characteristics

Packaging

- TO-46 with a ball lens cap

Application

- Fiber Channel
- Gigabit Ethernet
- ATM

**Absolute Maximum Ratings(Tc=25°C)**

Parameter	Symbol	Value	Unit
LD Continuous Forward Current, Heat-sinked	I_F	15	mA
LD Reverse Voltage	V_{RLD}	5	V
PD Reverse Voltage	V_{RPD}	30	V
PD Forward Current	I_{FPD}	10	mA
Operating Temperature	T_{opr}	0~70	°C
Storage Temperature	T_{stg}	-40~+100	°C

Optical and Electrical Characteristics(Tc=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test condition
Threshold Current	I_{th}	-	4	6	mA	
Optical Output Power	P_o	1	1.8	2.2	mW	$I_F=12mA$
I_{th} v.s T variation	$\Delta I_{th} / \Delta T$	-1	-	1	mA	0 to 70°C
Slope efficiency	η	0.1	0.2	0.4	W/A	$I_F=12mA$
Peak wavelength	λ_p	830	850	860	nm	$I_F=12mA$
λ_p v.s T variation	$\Delta \lambda_p / \Delta T$	-	0.065	0.07	nm	$I_F=12mA$
Spectral width, RMS	$\Delta \lambda$	-	-	1	nm	$I_F=12mA$
Laser forward voltage	V_F	1.8	2	2.2	V	$I_F=12mA$
PD Monitor Current	I_m	40	60	-	μA	$I_F=12mA, V_{RLD}>1V$
Relative Intensity Noise	RIN	-	-	-125	dB/Hz	1GHz BW
Series resistance	R_s	-	30	50	Ω	$I_F=12mA$
Beam divergence	θ	-	15	20	Deg.	$P_o=1.3mW$

Note:

1.ESD precautions must be taken when

handling this product •

2 Specifications subject to change without

notice •

LD Pin Options

Model	PIN Assignment (Bottom View)
C-85-001-G-B	
C-85-001-G-BB	

OIC

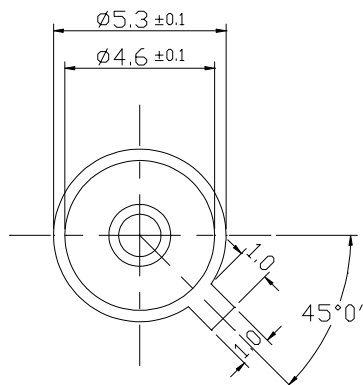
Optronics International Corp. No.46,Park Avenue II Road,Science-Basied Industrial Park , Hsin-Chu,Taiwan,R.O.C.30077

Tel:886-3-5790177 Fax:886-3-5790289 Email:oisales@ms27.hinet.net <http://www.oic.com.tw>

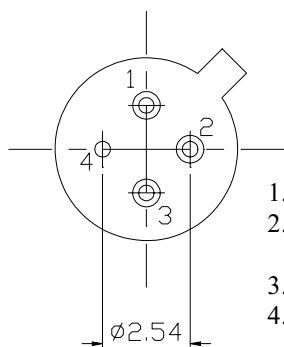
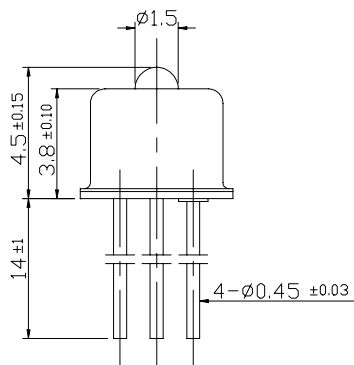
850nm

C-85-001-G-B
C-85-001-G-BB

HIGH SPEED 850nm VCSEL (Preliminary)



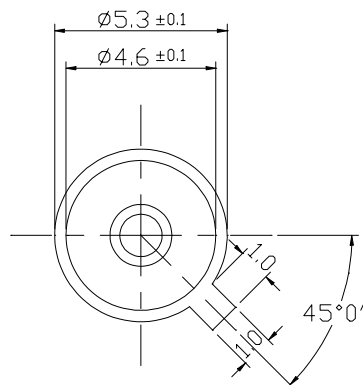
TOP VIEW



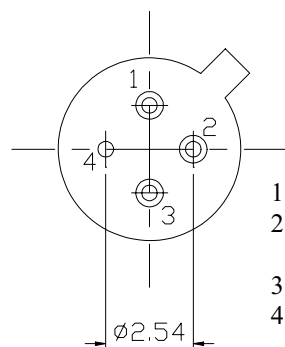
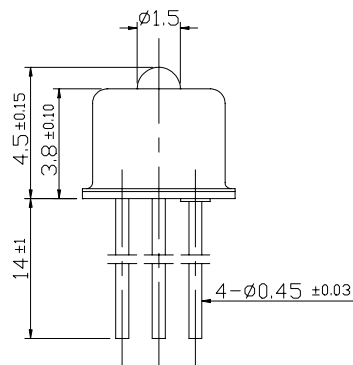
BOTTOM VIEW

TO-46 Package With Lens
All dimensions in mm

C-85-001-G-B



TOP VIEW



BOTTOM VIEW

TO-46 Package With Lens
All dimensions in mm

C-85-001-G-BB