

Features

- : Single-mode 850nm VCSEL
- : data rates > 155 Mbps
- : Low current and voltage
- : FC/ SC type connector available
- : Back monitor Photo diode
- : Other configurations available on request

Applications

- : Data Communications
- : Ethernet

Description

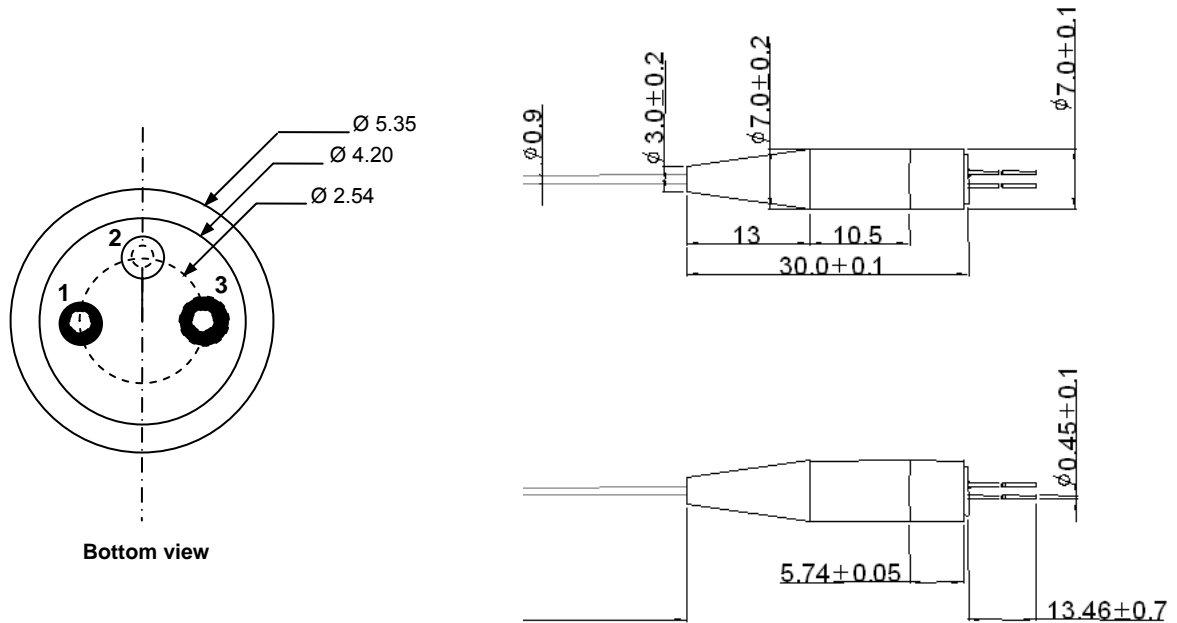


Absolute Maximum Ratings

Parameter	Rating
Storage Temperature	-40 to 85 °C
Operating Temperature	0 to 70 °C
Lead Solder Temperature	260 °C, 10 sec
Continuous Forward Current	8mA
Continuous Reverse Voltage	5V (@10µA)

Part Number :	Description :
GS85-FCP1T-KC	850nm 155Mbps FC type connector Pigtail , Common Cathode Type
GS85-FCP1T-AC	850nm 155Mbps FC type connector Pigtail , Common Anode Type
GS85-SCP1T-KC	850nm 155Mbps SC type connector Pigtail , Common Cathode Type
GS85-SCP1T-AC	850nm 155Mbps SC type connector Pigtail , Common Anode Type

PIN OUT



PIN OUT

GS85-FCP1T-KC (FC type)		GS85-FCP1T-AC (FC type)		GS85-SCP1T-KC (SC type)		GS85-SCP1T-AC (SC type)	
Number	Function	Number	Function	Number	Function	Number	Function
1	A _{VCSEL}	1	K _{VCSEL}	1	A _{VCSEL}	1	K _{VCSEL}
2	K _{VCSEL} , A _{m-PD}	2	A _{VCSEL} , K _{m-PD}	2	K _{VCSEL} , A _{m-PD}	2	A _{VCSEL} , K _{m-PD}
3	K _{m-PD}	3	A _{m-PD}	3	K _{m-PD}	3	A _{m-PD}

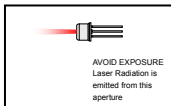
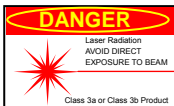
Electro-Optics Characteristics (T_a=25°C unless otherwise stated)

Parameters	Symbol	Specified			Unit	Test Conditions
		Min.	Typ.	Max.		
Threshold Current	I _{th}		1.5	2.5	mA	CW
I _{th} Temperature Variation	ΔI _{th}		1		mA	T _a =0 to 70 °C
Slope Efficiency	η		0.1		W/A	I _f = 3.5 mA
η Temperature Coefficient	Δη / ΔT		-0.5		%/ °C	T _a =0 to 70 °C at 3.5 mA
Fiber Optical Output Power	P _o	0.1	0.3		mW	I _f = 3.5 mA
Peak Wavelength	λ _p	840	850	860	nm	I _f = 3.5mA
λ _p Temperature Coefficient	Δλ / ΔT		0.06			T _a =0 to 70 °C at 3.5mA
Forward Voltage	V _f		1.7	2.1	V	I _f = 3.5mA
Breakdown Voltage	V _b		-10		V	
Dynamic Resistance	R _d		60		Ohm	I _f = 3.5mA
Side mode suppression Ratio	SMSR		20		dB	I _f = 3.5mA
Max. singlemode Current	I _{SM}		4		mA	SMSR > 20dB

Parameters	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Monitor Current	I _{PD}		20		μA	I _f = 3.5mA
Dark current	I _D			20	nA	P ₀ =0mW, V _R =3V
PD Reverse Voltage	BVR _{PD}	30	115		V	P ₀ =0mW, I _R =10μA
PD Capacitance	C			100	pF	V _R =0V, Freq=1MHz
				55		V _R =3V, Freq=1MHz

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.