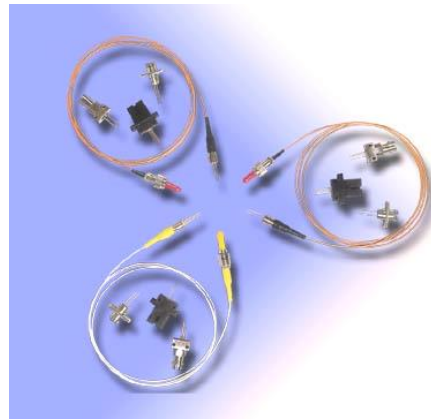


# 850nm VCSEL MM Module

## Features

- High coupled power
- Peak wavelength 850nm
- Low threshold current 2mA
- High speed  $t_r$ ,  $t_f < 0.3\text{ns}$
- Operating temperature range  $0^\circ\text{C}$  to  $70^\circ\text{C}$
- Hermetically sealed To -46 package in pigtailed or receptacle housing with FC, ST or SC connector



850nm VCSEL MM Module

## Applications

- Gigabit Ethernet

## Specifications (T=25 °C)

Parameter	Symbol	Test Conditions	Min	Typical	Max	Units
Peak wavelength	$\lambda$	$I_{op}=12\text{mA}$	830	850	860	nm
Spectral width FWHM	$\Delta\lambda$	$P_0$	-	-	0.85	nm
Threshold current	$I_{th}$	-	-	2	5	mA
Threshold current temperature variation (0 to $70^\circ\text{C}$ )	-	-	-1.5	-	1.5	mA
Coupled power (62.5/125 $\mu\text{m}$ fiber)	$P_0$					
-1		12mA, $25^\circ\text{C}$	0.5	-	-	mW
-2			1.0	-	-	mW
Coupled power (50/125 $\mu\text{m}$ fiber)	$P_0$					
-1		12mA, $25^\circ\text{C}$	0.4	-	-	mW
-2			0.8	-	-	mW
Slope efficiency temperature dependence	SE	$P_0$	-0.6	-	-	%/ $^\circ\text{C}$
Monitor Current (PD)	$I_m$	$P_0$	50	-	-	$\mu\text{A}$
PD Capacitance	$C_{PD}$	$V_R=3\text{V}$ @ 1MHz	-	6	10	pF
Forward voltage	$V_f$	$P_0$	1.7	1.9	2.2	V
Series Resistance	$R_s$	$P_0$	30	-	60	$\Omega$

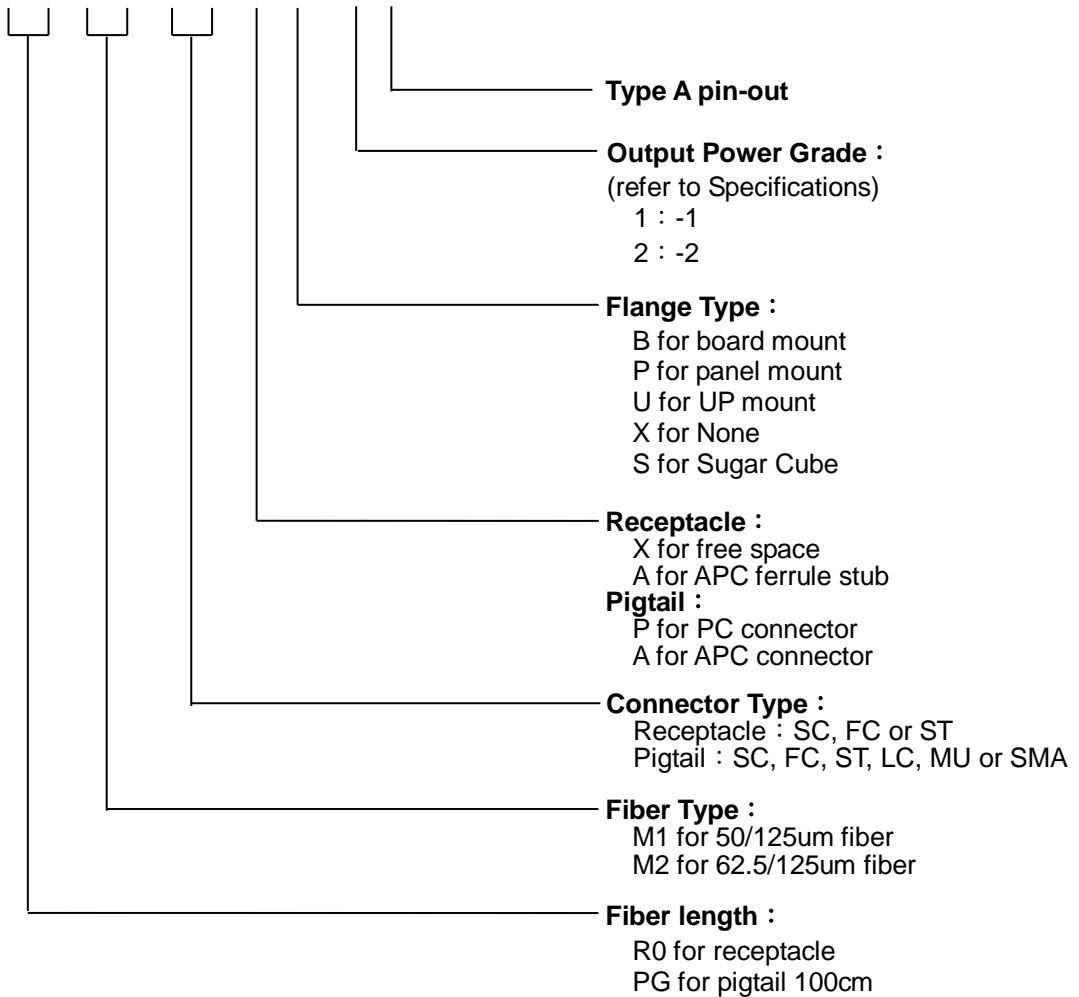
## Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Unit
Continuous forward current (LD)	$I_{op}$	-	15	mA
Continuous reverse voltage (LD)	$V_{RL}$	-	5	V
Operating temperature	$T_o$	0	85	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40	100	$^\circ\text{C}$
Lead soldering temperature (10 sec)	$T_L$	-	260	$^\circ\text{C}$

# 850nm VCSEL MM Module

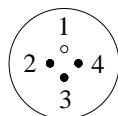
## Ordering Information

VD85□□M□□□□□-□A



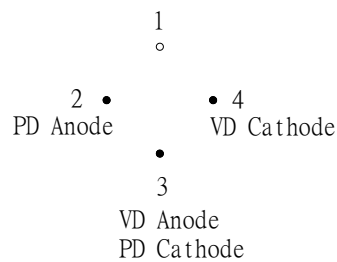
## Pin Connections

BOTTOM VIEW



UNIT : mm

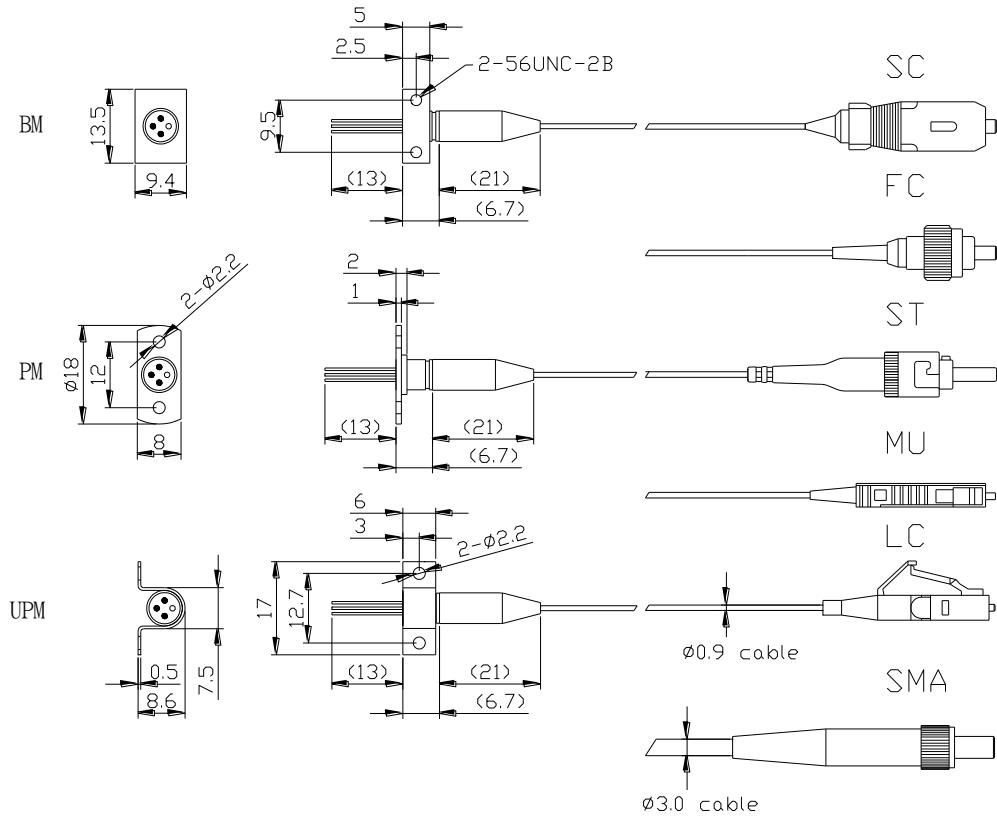
Case



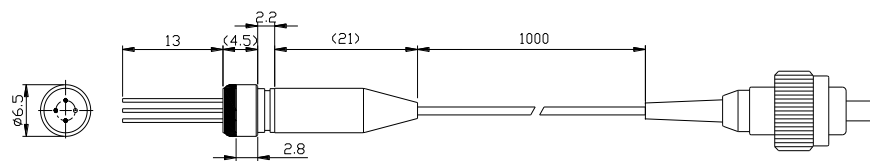
# 850nm VCSEL MM Module

## Dimension

### Pigtail Type

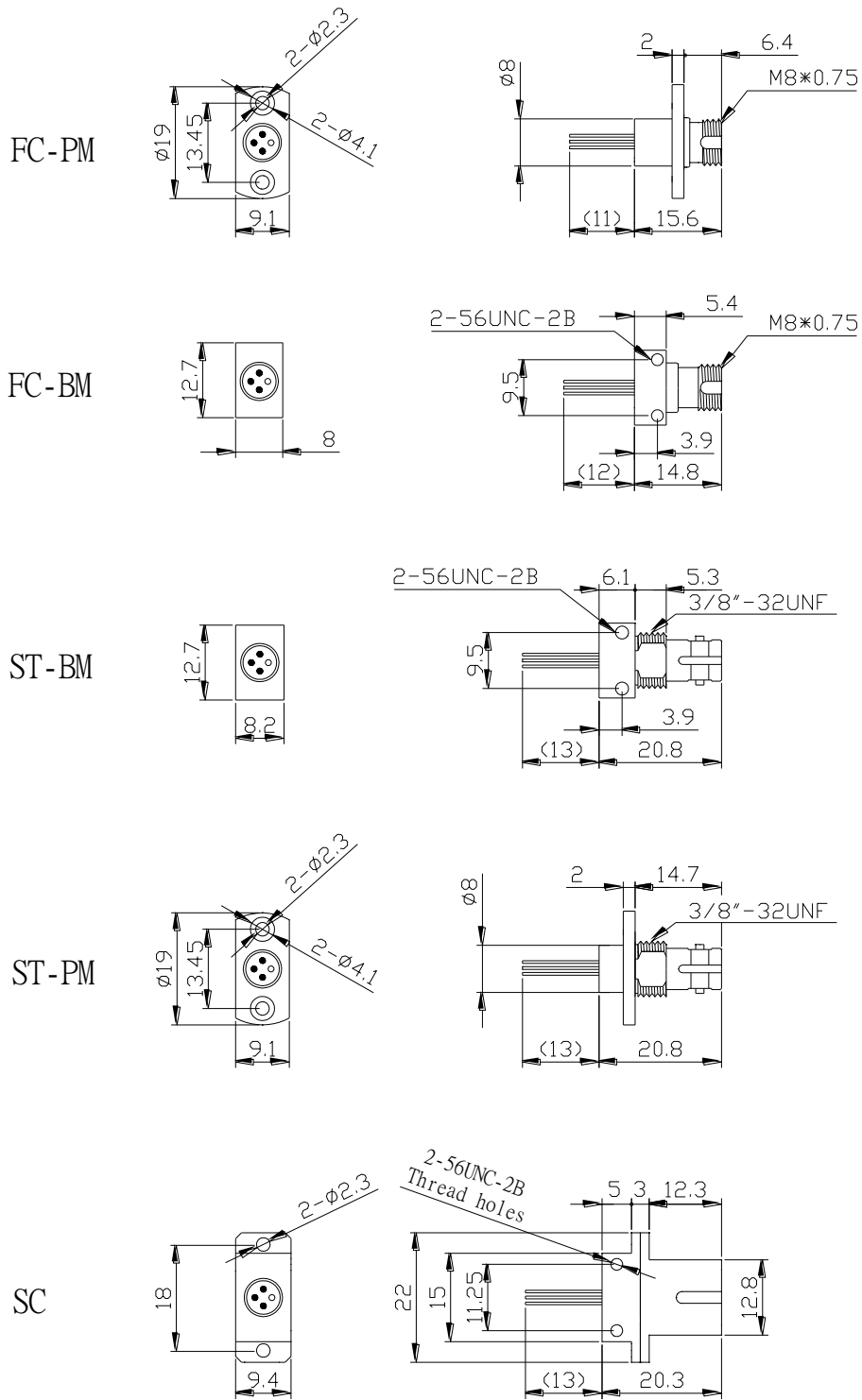


### No mount



# 850nm VCSEL MM Module

Receptacle Type

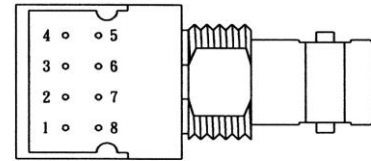
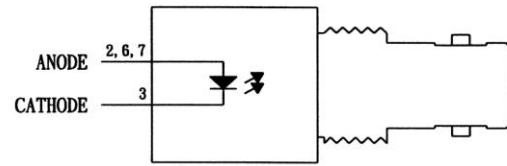


# 850nm VCSEL MM Module

Sugar Cube

Pin Connections (Type B)

PIN No.	FUNCTION
1	NC
2	Anode
3	Cathode
4	NC
5	NC
6	Anode
7	Anode
8	NC



BOTTOM VIEW

Dimension (ST Receptacle) Unit : mm

