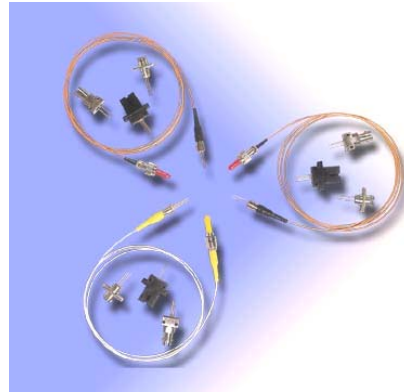


1.25Gbps 1310nm DFB Laser Diode Module

Features

- Center wavelength 1310nm
- Low threshold current
- High speed $t_r/t_f < 0.4\text{ns}$
- Built-in InGaAs monitor detector
- Four-lead package
- Wide operating temperature -20°C to 85°C
- Hermetically sealed TO-18 package in pigtailed or receptacle housing with FC, ST or SC connector



1.25Gbps 1310nm DFB Laser Diode Module

Applications

- Fiber In The Loop
- ATM, SONET/SDH
- Motorway and railway networks
- Intra and interoffice links
- Subscriber loops
- Trunk supervision

Specifications

Optical And Electrical Characteristics (T=25+/-3 °C unless specified otherwise)

Parameter	Symbol	Test Conditions	Min	Typical	Max	Units
Peak Wavelength	λ_c	$P_o, T_o = -20 \sim 85^\circ\text{C}$	1290	1310	1330	nm
Threshold current	I_{th}	$P_o, T_c = 85^\circ\text{C}$	-	6 30	20 40	mA
Operating voltage	V_{op}	P_o	-	1.1	1.8	V
Optical output power	P_o	$I_{th} + 20\text{mA}$				
-2			0.4	-	-	mW
-3			0.7	-	-	mW
-4			1.2	-	-	mW
Rise time/Fall time	tr/tf	1.25Gbps, 10~90pst	-	200	400	ps
Side Mode Suppression Ratio	SMSR	$P_o, T_o = -20 \sim 85^\circ\text{C}$	30	40		dB
Tracking error	TE	$P_o, T_o = -20 \sim 85^\circ\text{C}$	-1.0	-	1.0	dB
Monitor Current (PD)	I_m	$P_o, V_{RD} = 1\text{V}, R_L = 10\Omega$	0.05	0.5	-	mA
Dark Current (PD)	I_d	$V_{RD} = 5\text{V}$	-	-	0.1	μA
Capacitance (PD)	Ct	$V_{RD} = 5\text{V}, f = 1\text{MHz}$	-	10	20	pF
Minimum Isolation (w/isolator)		$T_o = 0 \sim 60^\circ\text{C}$	40	-	-	dB

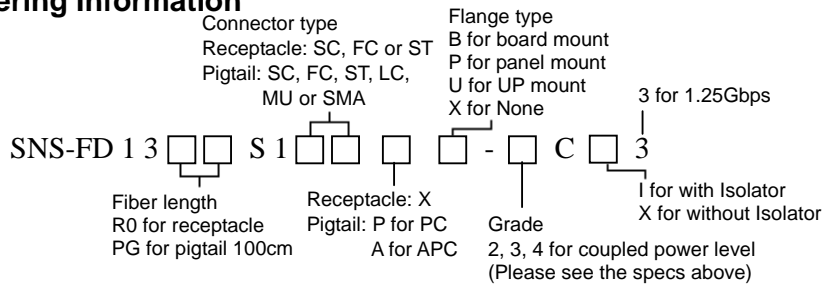
Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	unit
Optical Output Power	P_o		3	mW
Operating Current (LD)	I_{op}	-	150	mA
Reverse Voltage (LD)	V_{RL}	-	2	V
Reverse Voltage (PD)	V_{RD}	-	20	V
Forward Current (PD)	I_{FD}	-	2	mA
Case Temperature	T_o	-20	+85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40	+100	$^\circ\text{C}$
Lead Soldering temperature (10sec)	T_L	-	260	$^\circ\text{C}$



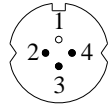
1.25Gbps 1310nm DFB Laser Diode Module

Ordering Information



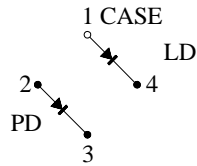
Pin Connections

BOTTOM VIEW

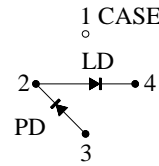


UNIT : MM

C TYPE
 PIN CONNECTIONS



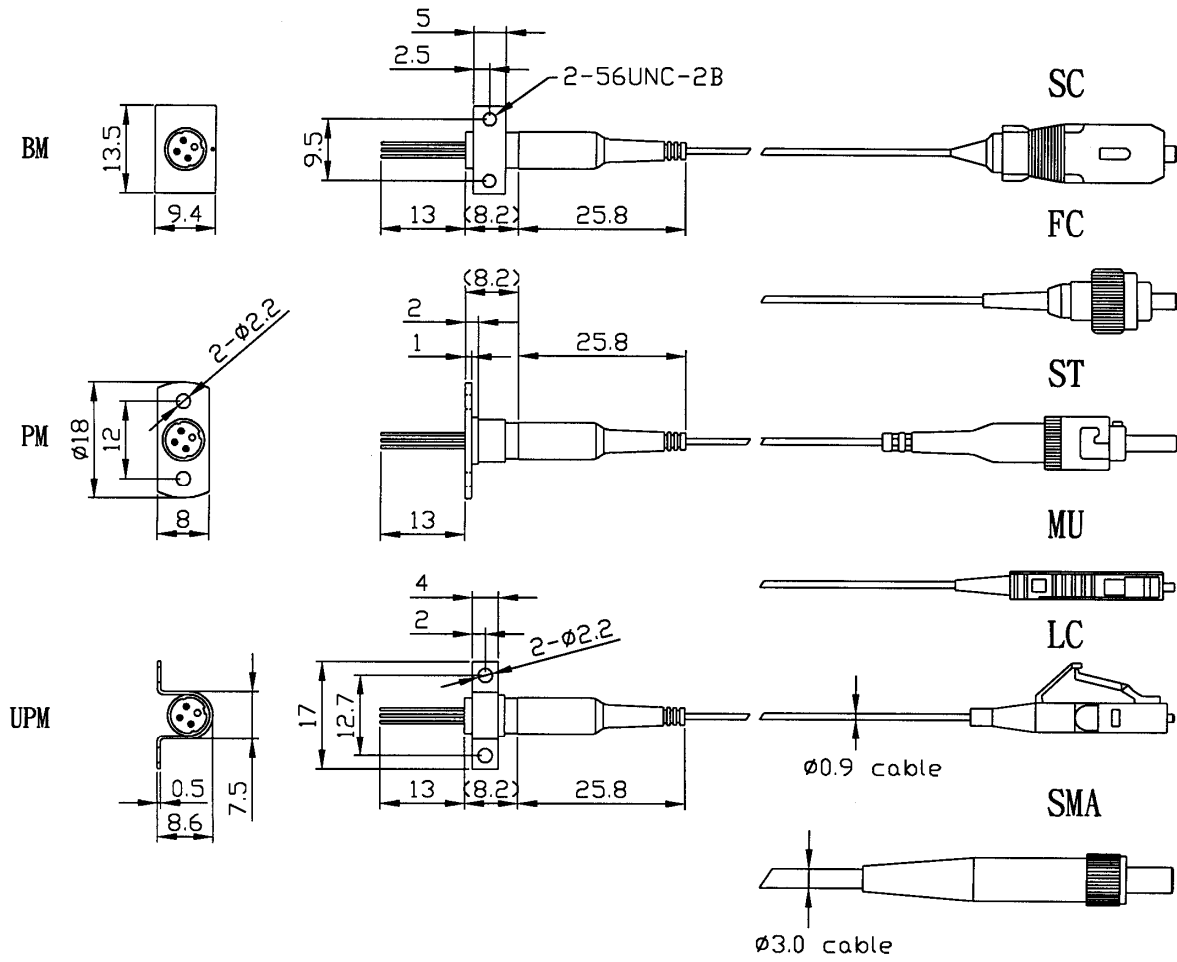
D TYPE
 PIN CONNECTIONS



Dimension

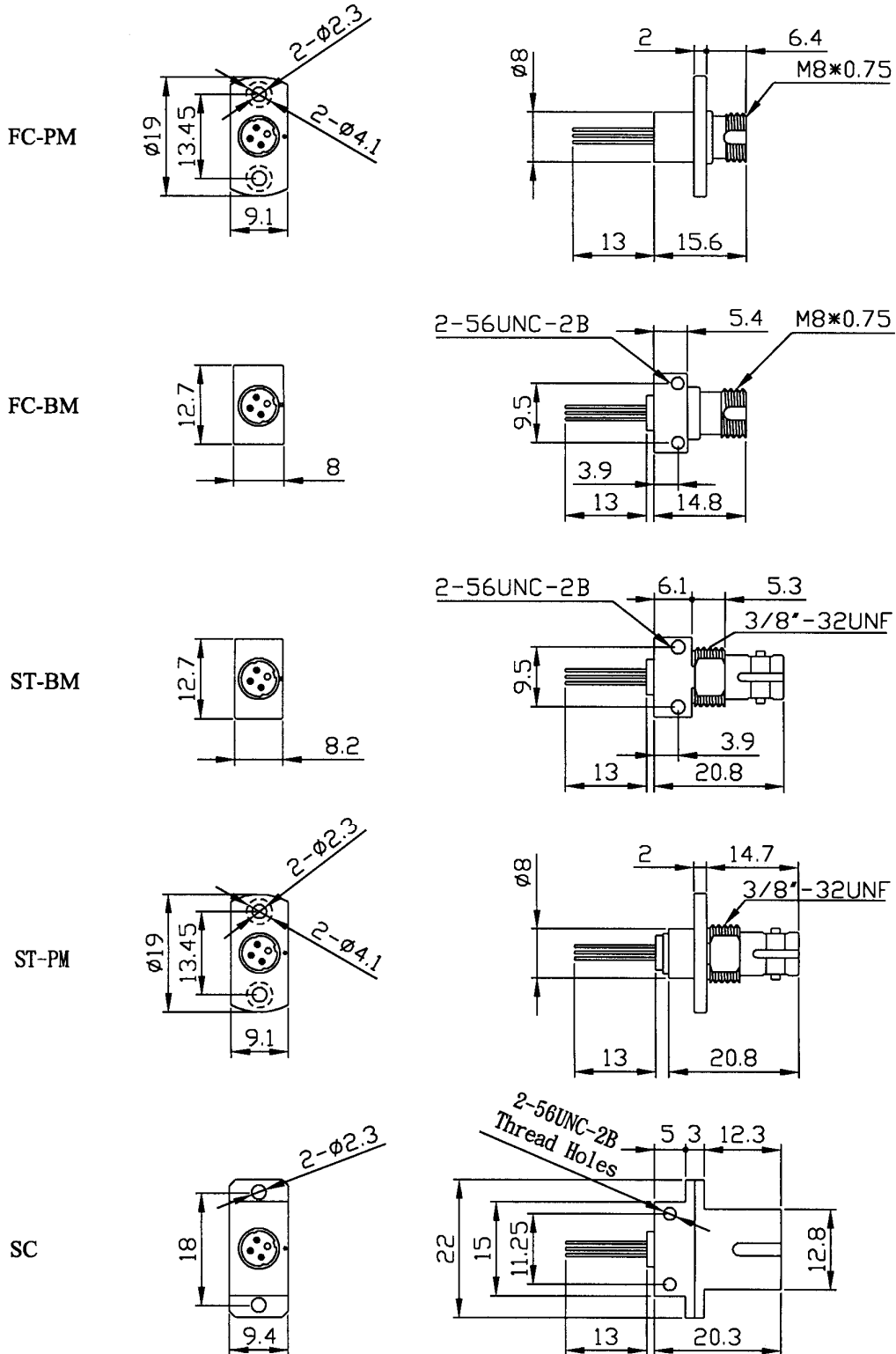
Pigtail Type

1.25Gbps 1310nm DFB Laser Diode Module



1.25Gbps 1310nm DFB Laser Diode Module

Receptacle Type

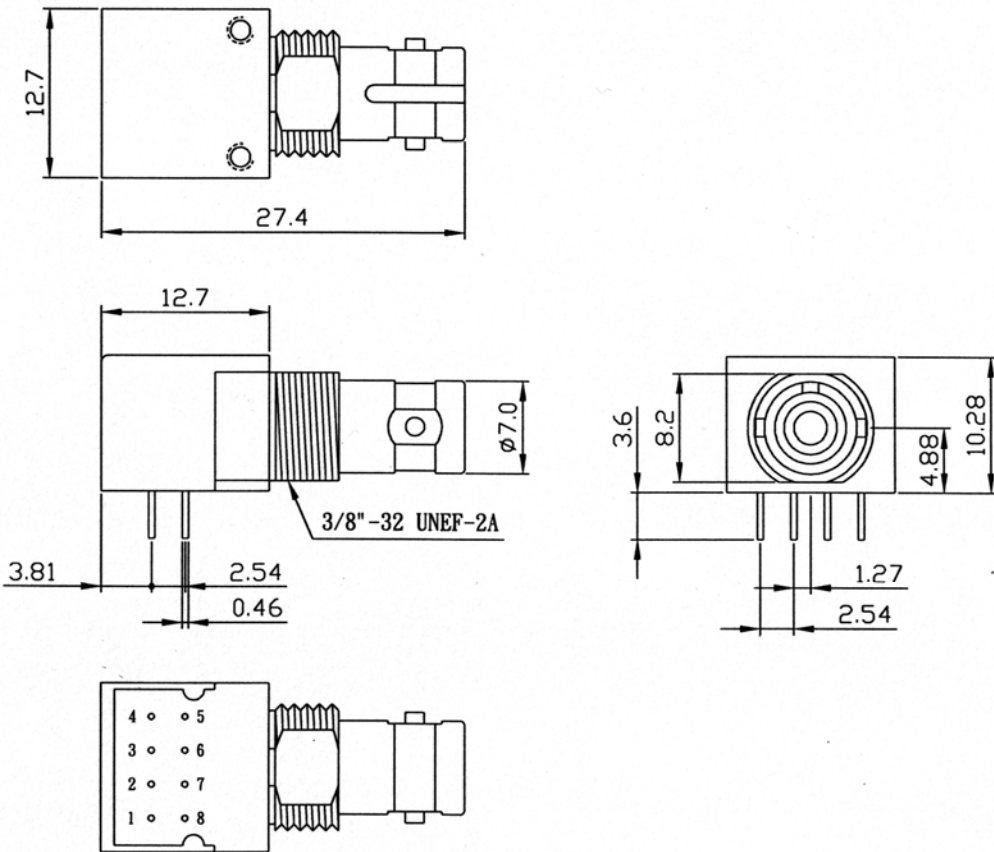


1.25Gbps 1310nm DFB Laser Diode Module

1.25Gbps 1310nm DFB Laser Diode Module

Sugar Cube

Dimension (ST Receptacle) Unit mm



1.25Gbps 1310nm DFB Laser Diode Module

Pin Connections (Type A)

PIN No.	FUNCTION
1	NC
2	ANODE
3	CATHODE
4	NC
5	NC
6	ANODE or NC
7	ANODE or NC
8	NC

Pin Connections (Type B)

PIN No.	FUNCTION
1	NC
2	NC
3	LD Cathode (LD-)
4	NC
5	NC
6	LD Anode (LD+), PD-
7	Monitor PD Anode (PD+)
8	NC

1310 nm DFB LD
Fiber-coupled Power vs. Drive Current (-4 grade)

