



650nm RED LASER MODULE - SYN-VFL Series

Description

The is index guided 650 nm (Typ.) AlGaInP laser diode with low threshold current and high operating temperature. The low threshold current and short wavelength are achieved by a strained multiple quantum well active layer. The lasing wavelength is 640nm which is 8 times brighter than that of 660nm lasers. The is suitable for applications such as bar-code scanners, laser printer, and other optical information systems.

Features

- ◎ MQW 650nm FP LD
- ◎ High output power
- ◎ Low threshold current
- ◎ Built-in InGaAsP monitor PD (P Type)
- ◎ Wide temperature range operation
(Tc= -10 to+65°C)
- ◎ Package : As Drawing & Dimensions

Application

- ◎ Laser module
- ◎ VFL (Visual Fault Locator)



Absolute Maximum Ratings

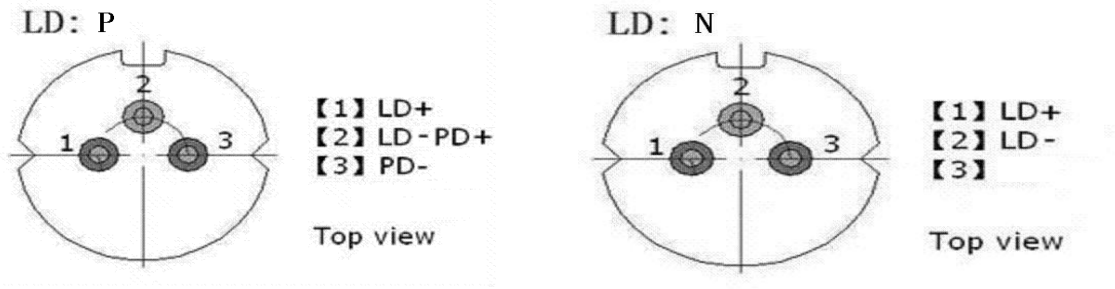
Parameter	Symbol	Value	Unit	Remark
LD Forward Current	IF(LD)	200	mA	
LD Reverse Voltage	VR(LD)	2	V	
PD Forward Current (For P Type)	IF(PD)	2	mA	
PD Reverse Voltage (for P Type)	VR(PD)	25	V	
Operating Temperature	TOP(LD)	-10 ~ +60	°C	
Storage Temperatur	TST	-40 ~ +80	°C	
Soldering Temperature/Time	-	240/10	°C/S	

Optical & Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Remark
Output Power	Po	1	-	20	mW	
Operating Current (for P Type)	Iop	25	-	45	mA	1mW= Iop 20~25mA 5mW= Iop 35~45mA
Operating Current (for N Type)	Iop	35	-	145	mA	5mW= Iop 35~45mA 10mW= Iop 85~90mA 20mW= Iop 120~125mA
Operating Voltage	Vop	-	2.2	2.8	V	
Center Wavelength	λ	640	650	660	nm	
Spectral Width	$\Delta\lambda$	-	-	4	nm	
Monitor Current	Im	0.1	0.2	0.5	mA	
Rise/ Fall Time	Tr/Tf	-	-	0.5	ns	



Pin Assignment



Note:

P :Type Pin Applicable Power 1~5mw

N :Type Pin Applicable Power 5~20mw

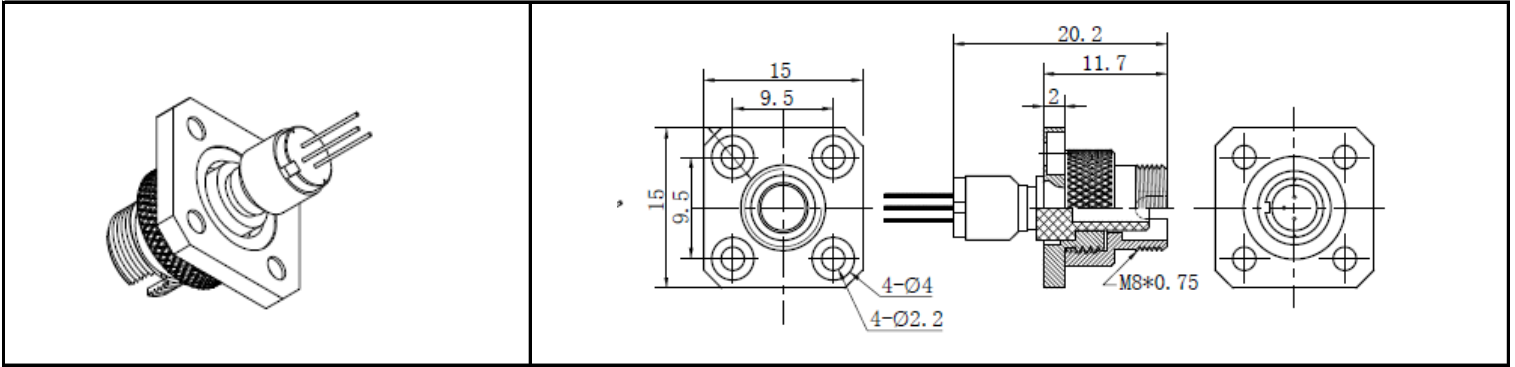
Order Information

Band	Mode	Base Type	Dimension	Power Range	P/N
SYN-	VFL-	FCUPC/RMFCUPC-	15/15-	1mW	SYN-VFL-FCUPC/RMFCUPC-15/15-mW
				5mW	SYN-VFL-FCUPC/RMFCUPC-15/15-5mW
				10mW	SYN-VFL-FCUPC/RMFCUPC-15/15-10mW
				20mW	SYN-VFL-FCUPC/RMFCUPC-15/15-20mW
SYN-	VFL-	FCUPC/RMFCUPC-	19/10R8-	1mW	SYN-VFL-FCUPC/RMFCUPC-19/10R8-1mW
				5mW	SYN-VFL-FCUPC/RMFCUPC-19/10R8-5mW
				10mW	SYN-VFL-FCUPC/RMFCUPC-19/10R8-
				20mW	SYN-VFL-FCUPC/RMFCUPC-19/10R8-
SYN-	VFL-	FCUPC-	15/15-	1mW	SYN-VFL-FCUPC-15/15-1mW
				5mW	SYN-VFL-FCUPC-15/15-5mW
				10mW	SYN-VFL-FCUPC-15/15-10mW
				20mW	SYN-VFL-FCUPC-15/15-20mW
SYN-	VFL-	FCUPC-	19/9R2-	1mW	SYN-VFL-FCUPC-19/9R2-1mW
				5mW	SYN-VFL-FCUPC-19/9R2-5mW
				10mW	SYN-VFL-FCUPC-19/9R2-10mW
				20mW	SYN-VFL-FCUPC-19/9R2-20mW
SYN-	VFL-	SCUPC-	22/9R4-	1mW	SYN-VFL-SCUPC-22/9R4-1mW
				5mW	SYN-VFL-SCUPC-22/9R4-5mW
				10mW	SYN-VFL-SCUPC-22/9R4-10mW
				20mW	SYN-VFL-SCUPC-22/9R4-20mW
SYN-	VFL-	STUPC-	12R7/10-	1mW	SYN-VFL-STUPC-12R7/10-1mW
				5mW	SYN-VFL-STUPC-12R7/10-5mW
				10mW	SYN-VFL-STUPC-12R7/10-10mW
				20mW	SYN-VFL-STUPC-12R7/10-20mW

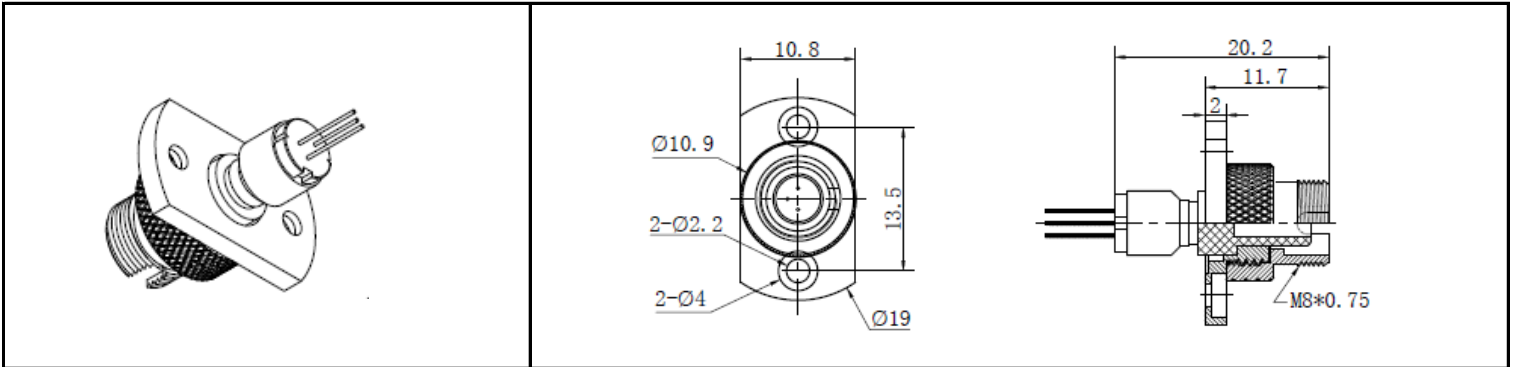


Drawing & Dimensions

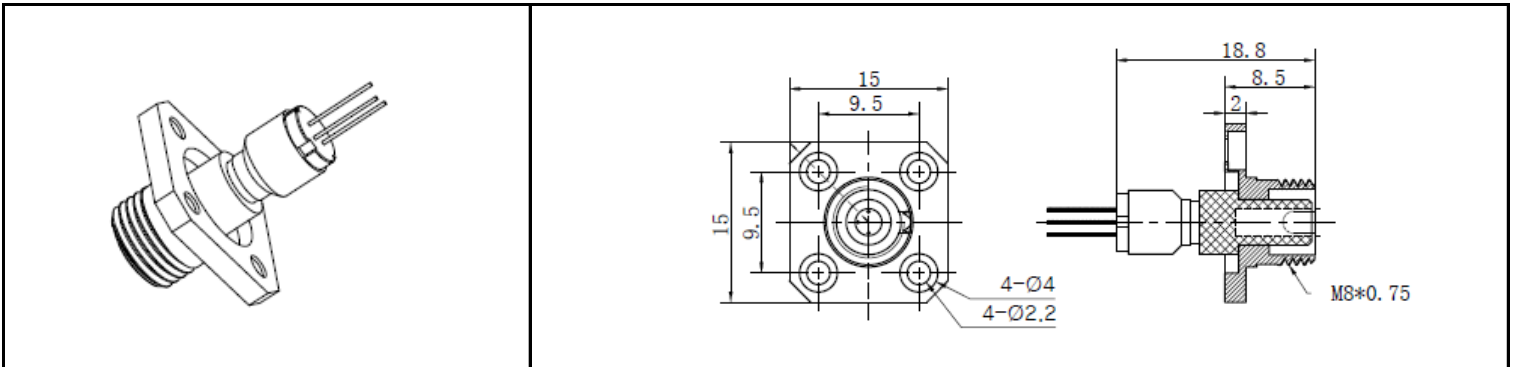
PN: SYN-VFL-FCUPC/RMFCUPC-15/15-XXX



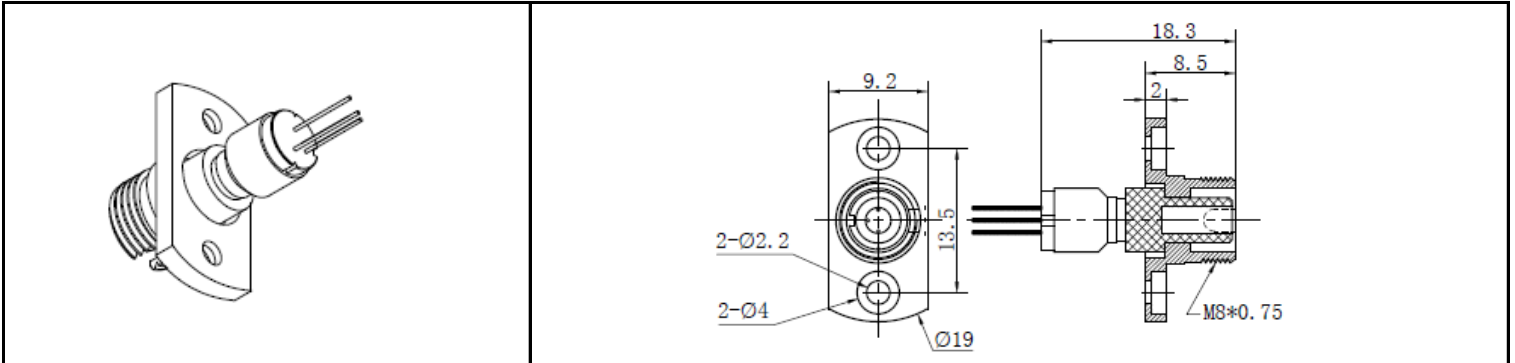
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PN: SYN-VFL-FCUPC-15/15-XXX

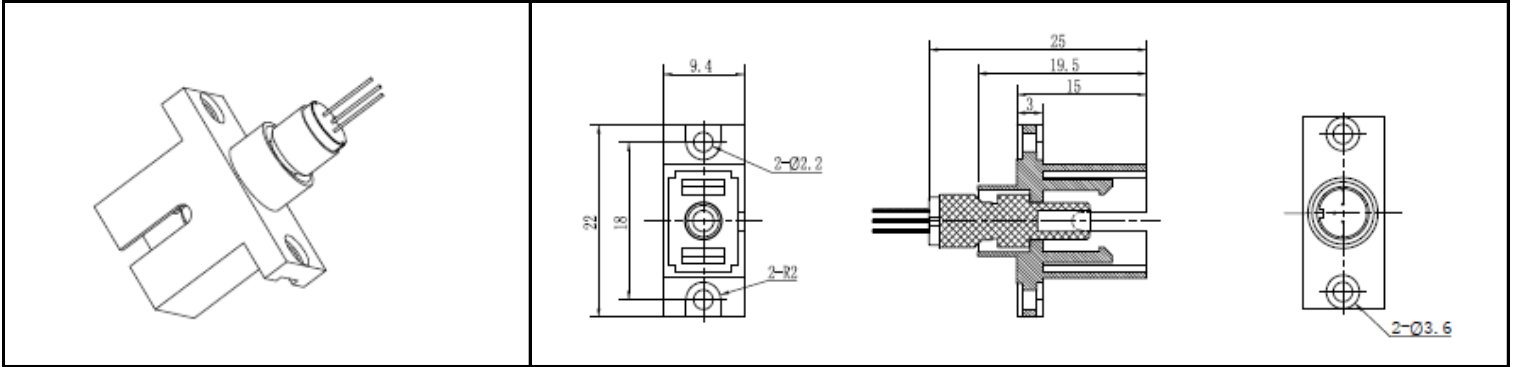


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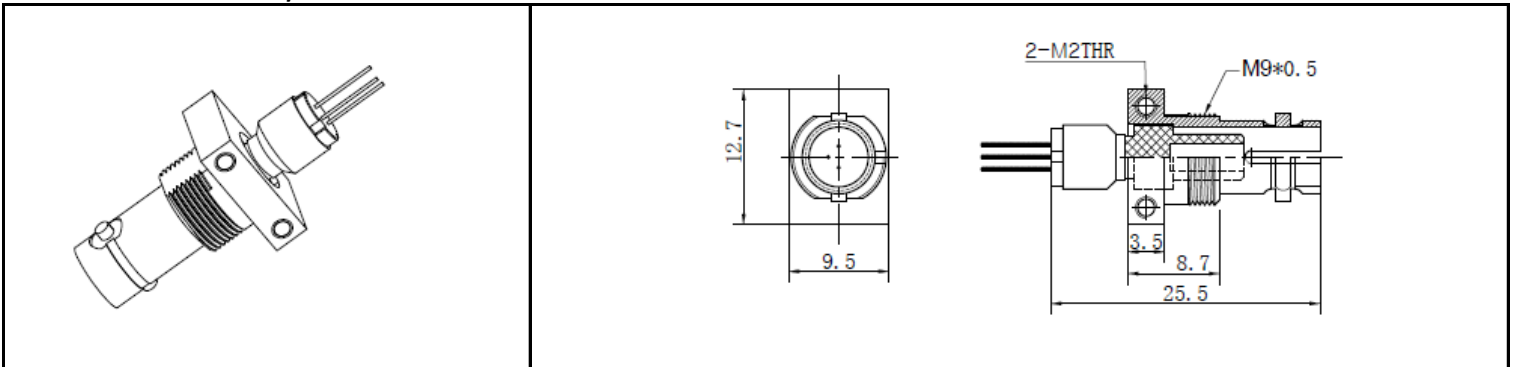




PN: SYN-VFL-SCUPC-22/9R4-XXX



PN: SYN-VFL-STUPC-12R7/10-XXX



Semiconductor lasers and detectors are Static sensitive components are vulnerable to Electrostatic discharge (ESD)and surge over Current (EOS) damage! Please contact with Static sensitive

