

FU-627SHL-3M21/3M22/6M21/6M22

1.55 μ m LD MODULE WITH SINGLEMODE FIBER PIGTAIL

DESCRIPTION

Module type FU-627SHL-XMXX has been developed for coupling a singlemode optical fiber and a 1.55 μ m wavelength InGaAsP LD (Laser diode).

FU-627SHL-XMXX is suitable to light source for measuring instruments.(especially, OTDR)

FEATURES

- High optical output power
- Emission wavelength is in 1.55 μ m band

APPLICATION

OTDR

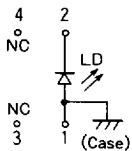
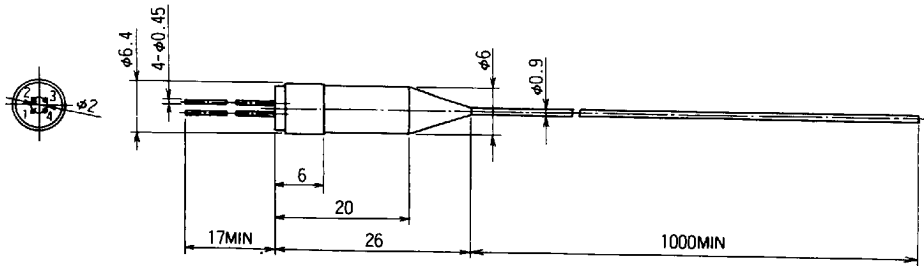
ABSOLUTE MAXIMUM RATINGS (T_c = 25 °C)

Parameter	Symbol	Conditions	Rating	Unit
Laser diode	Reverse voltage	V _{RL}	—	2
	Forward current	I _{FL}	Pulse (Note 1)	1
Operating case temperature	T _c	—	— 20 ~ + 60	°C
Storage temperature	T _{stg}	—	— 40 ~ + 70	°C

Note 1. Pulse condition : Pulse width $\leq$ 10 μ s, Duty ratio $\leq$ 1 %

OUTLINE DIAGRAM

(Unit : mm)



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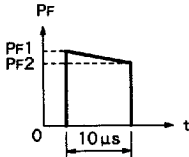
CHARACTERISTICS (Tc = 25 °C, Unless otherwise noted)

Parameter		Symbol	Test conditions	Limits						Unit
				FU-627SHL-3M21 (Note 4)			FU-627SHL-3M22 (Note 4)			
				Min.	Typ.	Max.	Min.	Typ.	Max.	
Threshold current		I _{th}	—	—	30	50	—	30	50	mA
Operating current		I _{OP}	Pulse (Note 1)	400	450	800	400	450	800	mA
Operating voltage		V _{OP}	I _F = I _{OP} , Pulse (Note 1)	—	—	5	—	—	5	V
Optical output power from fiber end (Note 4)		P _F	I _F = I _{OP} , Pulse T _C = 25 °C (Note 1)	30	—	—	60	—	—	mW
			I _F = I _{OP} , Pulse T _C = 60 °C (Note 1)	15	—	—	30	—	—	
-XM21	Central wavelength (Note 4)	λ _c	I _F = I _{OP} , Pulse (Note 1)	1540	1550	1560	1540	1550	1560	nm
-XM22				1530	1550	1570	1530	1550	1570	
Spectral width (RMS)		Δ λ	I _F = I _{OP} , Pulse (Note 1)	—	—	15	—	—	15	nm
Pulse droop (Note 3)		ΔP _F	I _F = I _{OP} , Pulse (Note 1)	—	—	20	—	—	20	%
Rise and fall time		t _r , t _f	I _B = I _{th} , 10~90 % (Note 2)	—	1	2	—	1	2	ns

Note 1. Pulse condition : Pulse width ≤ 10 μs, Duty ratio ≤ 1 %

2. I_B : Bias current (LD)

3.
$$\Delta P_F = \frac{P_{F1} - P_{F2}}{P_{F1}} \times 100$$



4.

Type number	P _F (25 °C)	λ _c (25 °C)
FU-627SHL-3M21	30mW(min)	1550 ± 10nm
FU-627SHL-3M22		1550 ± 20nm
FU-627SHL-6M21	60mW(min)	1550 ± 10nm
FU-627SHL-6M22		1550 ± 20nm

OPTICAL-FIBER SPECIFICATIONS

Parameter	Limits	Unit
Type	SM	—
Mode field dia.	10 ± 1	μm
Cladding dia.	125 ± 2	μm
Jacket dia.	0.9 typ.	mm

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TYPICAL CHARACTERISTICS

