

MITSUBISHI (OPTICAL DEVICES)
FU-627SHL-6M22

1.55 μ m LD MODULE WITH SINGLEMODE FIBER PIGTAIL

DESCRIPTION

Module type FU-627SHL-6M22 has been developed for coupling a singlemode optical fiber and a 1.55 μ m wavelength InGaAsP LD (Laser diode). FU-627SHL-6M22 is suitable to light source for measuring instruments(especially, OTDR).

FEATURES

- High optical output power
 - Emission wavelength is in 1.55 μ m band
 - MQW* active layer
 - FSBH** structure fabricated by all MOCVD process
- *Multiple quantum well
**Facet selective-growth buried heterostructure



APPLICATION

OTDR

ABSOLUTE MAXIMUM RATINGS (Tc=25°C)

Parameter		Symbol	Conditions	Rating	Unit
Laser diode	Reverse voltage	Vr1	-	2	V
	Forward current	Ifl	Pulse(Note 1)	1	A
Operating case temperature		Tc	-	-20~+60	°C
Storage temperature		Tstg	-	-40~+70	°C

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

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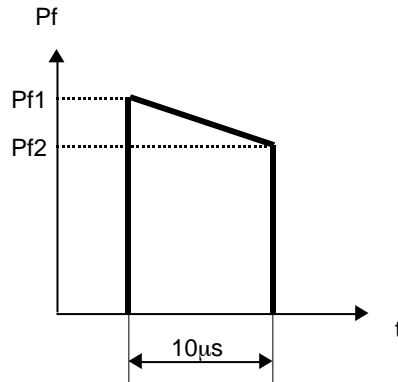
ELECTRICAL/OPTICAL CHARACTERISTICS (T_c=25°C, unless otherwise noted)

Parameter	Symbol	Test Conditions	Limits			Unit
			Min.	Typ.	Max.	
Threshold current	I _{th}	-	-	30	50	mA
Operating current	I _{op}	Pulse (Note 1)	400	450	800	mA
Operating Voltage	V _{op}	I _f =I _{op} , Pulse (Note 1)	-	-	5	V
Optical output power from fiber end	P _f	I _f =I _{op} , Pulse (Note 1) T _c =25°C	60	-	-	mW
		I _f =I _{op} , Pulse (Note 1) T _c =25°C	30			
Central wavelength	λ_c	I _f =I _{op} , Pulse (Note 1)	1530	1550	1570	nm
Spectral width(RMS)	$\Delta\lambda$	I _f =I _{op} , Pulse (Note 1)	-	-	15	nm
Pulse droop (Note 3)	ΔP_f	I _f =I _{op} , Pulse (Note 1)	-	-	20	%
Rise and fall times	t _r , t _f	I _b =I _{th} , 10~90% (Note 2)	-	1	2	ns

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

2. I_b : Bias current (LD)

3. $\Delta P_f = (P_{f1} - P_{f2}) / P_{f1} \times 100$



OPTICAL FIBER SPECIFICATION

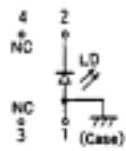
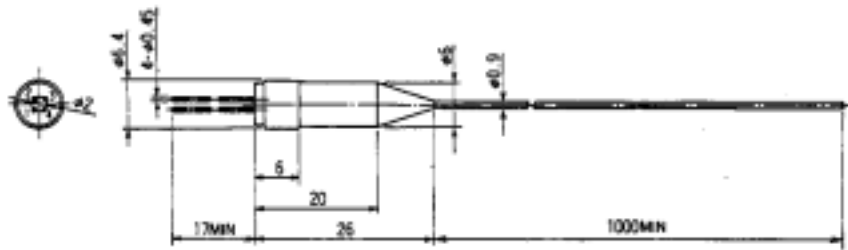
Parameter	Limits	Unit
Type	SM	-
Mode field dia.	9.5 \pm 1	μ m
Cladding dia.	125 \pm 2	μ m
Jacket dia.	0.9 typ.	mm

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OUTLINE DIAGRAM

(Unit : mm)



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