MITSUBISHI (OPTICAL DEVICES)

FU-627SDF

1.55 μm DFB-LD MODULE WITH SINGLEMODE FIBER PIGTAIL

DESCRIPTION

Module type FU-627SDF has been developed for coupling a singlemode optical fiber and a 1.55μm wavelength InGaAsP DFB LD (Laser diode).
FU-627SDF is suitable to light source for high-speed short haul digital optical communication systems.

FEATURES

- MQW-DFB laser diode module
- High-speed response
- Emission wavelength is in 1.55μm band

APPLICATION

High-speed short haul and long haul digital optical communication systems.

ABSOLUTE MAXIMUM RATINGS (Tc=25°C)

Parameter		Symbol	Conditions	Rating	Unit
Laser diode	Optical output power from fiber end	Pf	CW	3	mW
	Reverse voltage	Vrl	-	2	V
Photodiode for monitoring	Reverse voltage	Vrd	-	15	V
	Forward current	Ifd	-	2	mA
Operating case temperature		Tc	-	0~+85	°C
Storage temperature		Tst	-	-40~+85	°C

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

Parameter	Symbol	Test Conditions	Limits			Unit
			Min.	Typ.	Max.	
Threshold current	Ith	CW	-	15	40	mA
Operating current	Iop	CW	-	38	90	mA
Operating Voltage	Vop	CW,If=Iop (Note 1)	-	1.2	1.6	V
Optical output power from fiber end	Pf	CW,If =Iop	2	-	-	mW
Center wavelength	λ_C	CW,If =Iop	1530	1550	1570	nm
Side mode suppression ration	SMSR	CW,If=Iop	30	35	-	dB
Rise and fall times	tr, tf	Ib=Ith,10~90% (Note 2)	-	0.3	-	ns
Tracking error (Note 3)	Er	Tc=0~85°C,APC	-	0.5		dB
Differential efficiency	η	-	-	0.08	-	mW/mA
Monitor current	Imon	CW,If=Iop,Vrd=5V	0.1	0.5	-	mA
Dark current (Photodiode)	Id	Vrd=5V	-	0.1	0.5	μA
Capacitance (Photodiode)	Ct	Vrd=5V,f=1MHz	-	-	20	pF

Note 1. If : Forward current (LD)

2. Ib : Bias current (LD)

3. Er=MAX|10×log(Pf(Tc)/Pf(25°C))|

OPTICAL FIBER SPECIFICATION

Parameter	Limits	Unit
Type	SM	-
Mode filed dia.	9.5±1	μm
Cladding dia.	125±2	μm
Jacket dia.	0.9 typ.	mm

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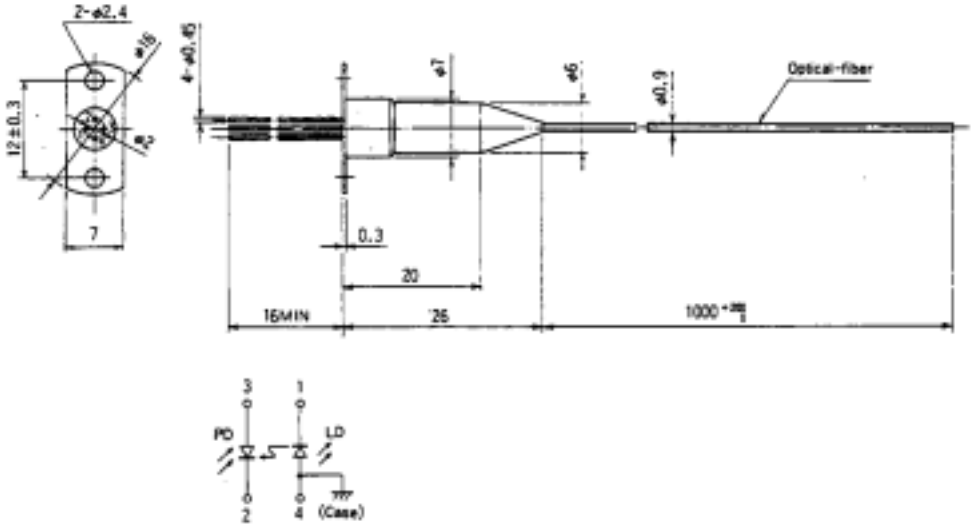
OUTLINE DIAGRAM

(Unit : mm)



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