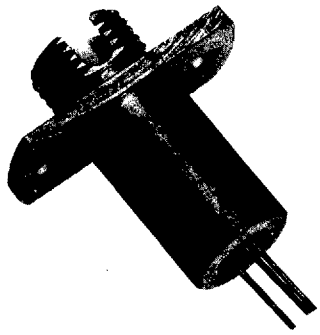
FU-011SLD-N2

0.78 μm Connectorized LD Module for Singlemode Fiber

LD module type FU-011SLD-N2 contains self-pulsation AlGaAs LD (Laser diode) for 0.78μm band and is used as light source for use in intermediate and high speed local area network systems.



FU-011SLD-N2

FEATURES

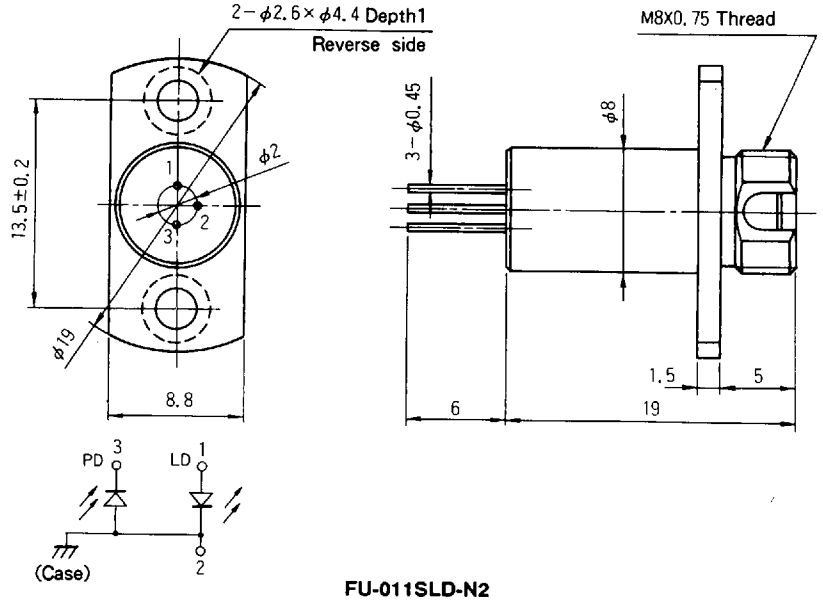
- High-speed response
- Emission wavelength is in 0.78μm wavelength band
- Connectorized package for FC connector
- With photodiode for optical output monitor
- Diodes are hermetically sealed

ABSOLUTE MAXIMUM RATINGS (Tc=25℃)

Items		Symbols	Conditions	Ratings	Units
Laser diode	Optical output power from fiber end (Note 1)	P_F	CW	1	mW
	Reverse Voltage	V_{RL}	–	2	V
Photodiode for monitoring	Reverse Voltage	V_{RD}	–	15	V
	Forward Current	I_{FD}	–	10	mA
Operating case temperature		T_C	–	–20~60	℃
Storage temperature		T_{stg}	–	–40~70	℃

Note 1) Singlemode fiber master plug with mode field diameter 10μm

OUTLINE DRAWINGS Unit (mm)



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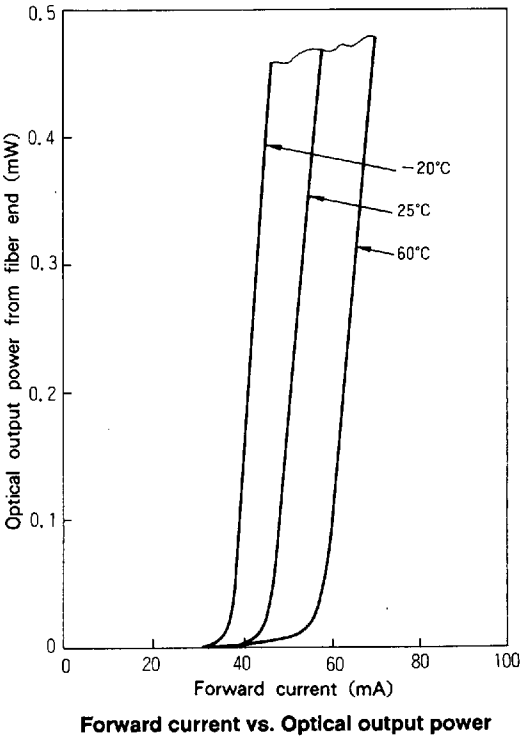
CHARACTERISTICS (T_C=25°C, unless otherwise noted)

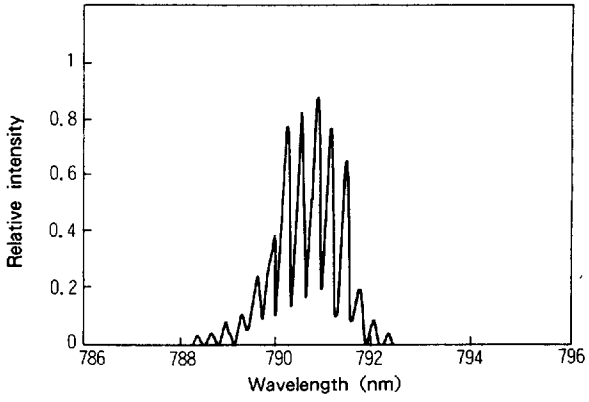
Items	Symbols	Conditions	Min.	Typ.	Max.	Units
Threshold current	I_{th}	CW	–	45	70	mA
Operating current	I_{op}	CW	–	55	85	mA
Operating voltage	V_{op}	CW, $I_F = I_{op}$ (Note 1)	–	1.8	2.3	V
Optical output power from fiber end (Note 2)	P_F	CW, $I_F = I_{op}$	0.25	0.4	–	mW
Central wavelength	λ_C	CW, $I_F = I_{op}$	765	780	800	nm
Rise and fall times	t_r, t_f	$I_B = I_{th}$, 10~90% (Note 3)	–	0.5	–	ns
Tracking error (Note 4)	E_r	T_C = – 20~60°C, APC	–	0.5	–	dB
Differential efficiency (Note 2)	η	–	–	0.04	–	mW/mA
Monitor current	I_{mon}	CW, $I_F = I_{op}$, V_{RD} = 5V	0.1	0.4	–	mA
Dark current (Photodiode)	I_D	V_{RD} = 5V	–	–	1	μA
Capacitance (Photodiode)	C_t	V_{RD} = 5V, f = 1MHz	–	7	–	pF
Optical connector type	–	–	FC			–

Note 1) I_F : Forward current (LD)
Note 2) Singlemode fiber master plug with mode field diameter 10μm
Note 3) I_B : Bias current (LD)
Note 4) $E_r = \mathrm{MAX}\left|10 \cdot \log \frac{P_F}{P_F\ (25℃)}\right|$

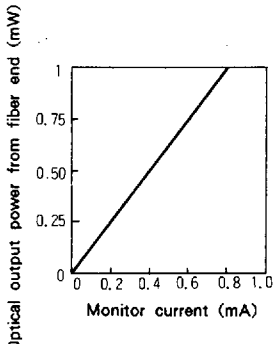
EXAMPLE OF CHARACTERISTICS



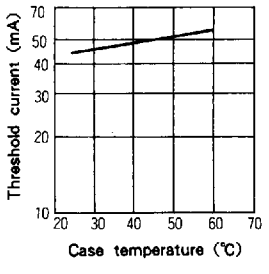
Forward current vs. Optical output power



Light-emission spectrum



Monitor current vs. Optical output power from fiber end



Case temperature vs. Threshold current

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