

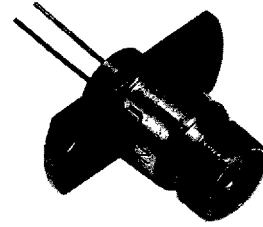
FU-02LE-N, FU-23LE

0.85 μ m LED Module for Multimode Fiber

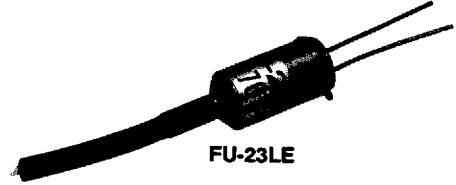
LED Module, FU-02LE-N and FU-23LE contain a highly-reliable 0.85 μ m band AlGaAs/Ga Light-emitting diode and are used as light source for both digital and analog optical communication systems.

FEATURES

- High optical output power
- High-speed modulation
- Superior linearity between current and optical output
- High reliability



FU-02LE-N



FU-23LE

ABSOLUTE MAXIMUM RATINGS (T_c=25 °C)

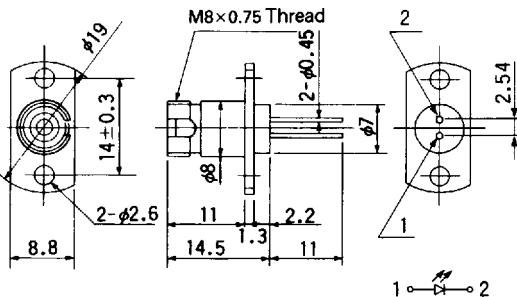
Items	Symbols	Conditions	Ratings		Units
			FU-02LE-N	FU-23LE	
Forward current (Note 1)	I _F	T _c ≤ 50 °C	CW	75	mA
			Pulse (Note 2)	120	
Reverse voltage	V _R	—	3	3	V
Operating case temperature	T _c	—	− 20~65	− 20~65	°C
Storage temperature	T _{stg}	—	− 40~70	− 40~70	°C

Note 1) Forward current at T_c > 50 °C

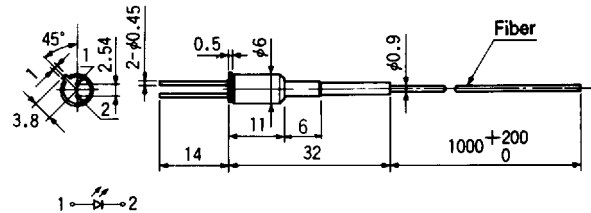
$$I_F(T_c) = I_F(T_c \leq 50^\circ\text{C}) \cdot \frac{100 - T_c}{50}$$

Note 2) Frequency > 100kHz, Duty ratio < 50 %

OUTLINE DRAWINGS Unit (mm)



FU-02LE-N



FU-23LE

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CHARACTERISTICS ($T_c=25^\circ\text{C}$, unless otherwise noted)

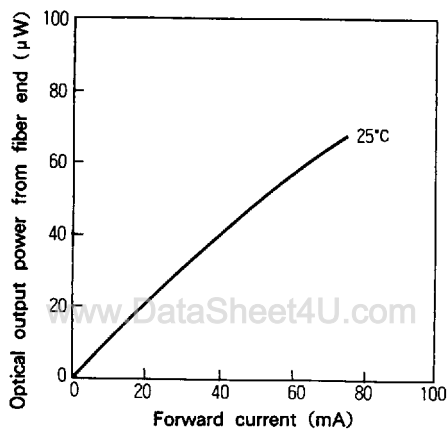
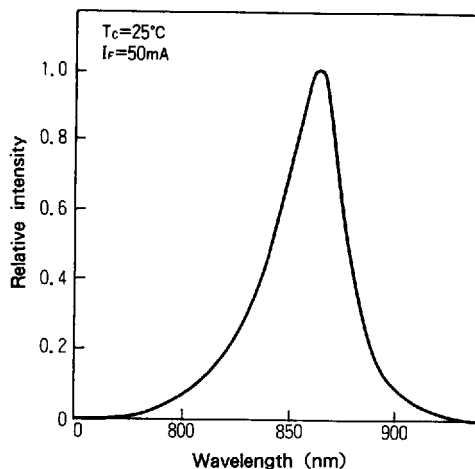
Items	Symbols	Conditions	FU-02LE-N			FU-23LE			Units
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Central wavelength	λ_c	$I_F = 50\text{mA}$	780	840	880	780	840	880	nm
Spectral bandwidth (FWHM)	$\Delta\lambda$	$I_F = 50\text{mA}$	—	45	—	—	45	—	nm
Optical output power from fiber end (Note 1)	P_F	$I_F = 75\text{mA}$	40	65	—	40	65	—	μW
Cutoff frequency (-1.5dB)	f_c	$I_F = 25\text{mA} + 4\text{mA p-p}$	10	30	—	10	30	—	MHz
Forward voltage	V_F	$I_F = 50\text{mA}$	—	1.6	2.2	—	1.6	2.2	V
Reverse current	I_R	$V_R = 3.0\text{V}$	—	—	10	—	—	10	μA
Optical connector type (Note 2)	—	—	FC			—			—

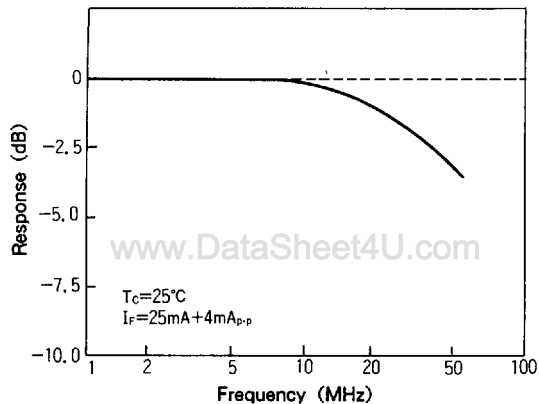
Note 1) Fiber : GI type with core dia. $50\mu\text{m}$ and N.A.0.2

Note 2) FU-02LE-N only

FIBER PIGTAIL SPECIFICATIONS (FU-23LE only)

Items	Specifications	Units
Type	GI	—
Core dia.	50 ± 3	μm
N.A.	0.2	—
Cladding dia.	125 ± 3	μm
Jacket dia.	0.9	mm

EXAMPLE OF CHARACTERISTICS**Forward current vs. Optical output power****Light-emission spectrum**



Frequency response