

LNA4501F (LN124W)

GaAlAs Red Light Emitting Diode

For optical fiber communications and control systems

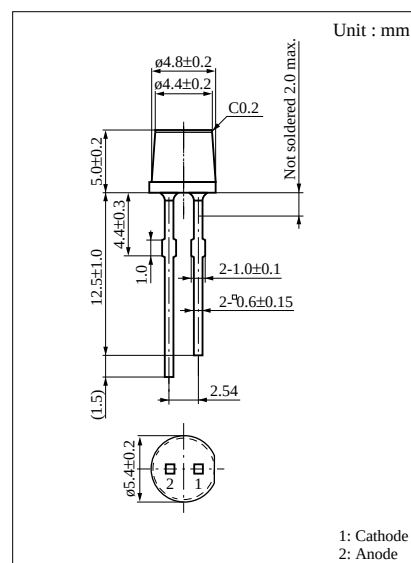
■ Features

- Red light emission close to monochromatic light : $\lambda_p = 680 \text{ nm}$
- High-power output, high-efficiency : $P_O = 3 \text{ mW}$
- High coupling characteristics and suits to a plastic fiber
- High-speed response : -3dB modulation of 10 MHz
- Flat resin package : $\phi 4.8 \text{ mm}$

■ Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Ratings	Unit
Power dissipation	P_D	120	mW
Forward current (DC)	I_F	40	mA
Pulse forward current	I_{FP}^*	200	mA
Reverse voltage (DC)	V_R	3	V
Operating ambient temperature	T_{opr}	-25 to $+85$	$^\circ\text{C}$
Storage temperature	T_{stg}	-30 to $+100$	$^\circ\text{C}$

* $t_w = 10 \mu\text{s}$, Duty cycle = 10 %

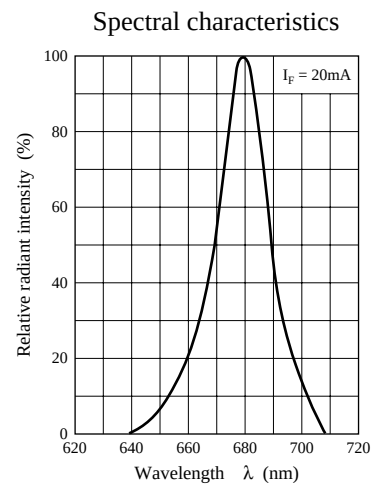
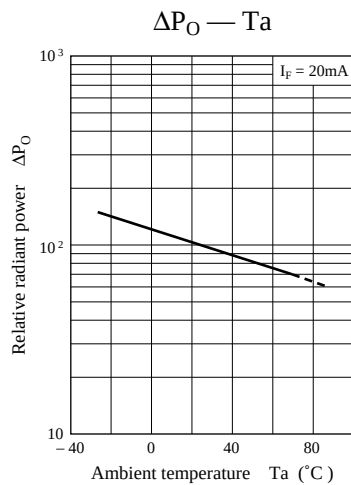
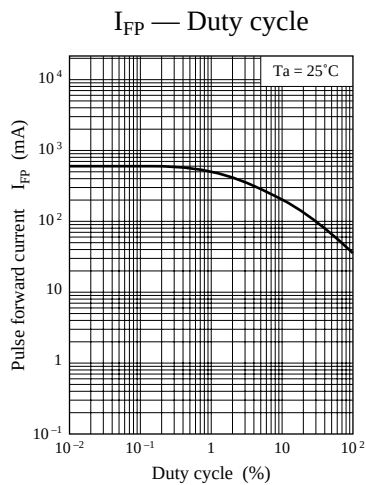
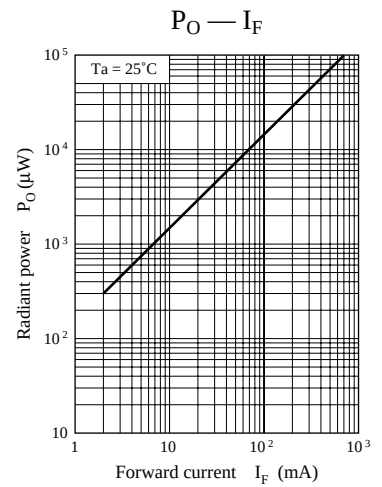
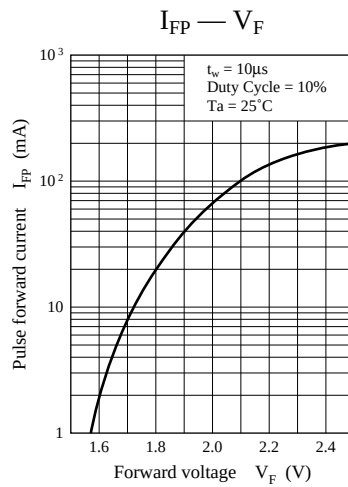
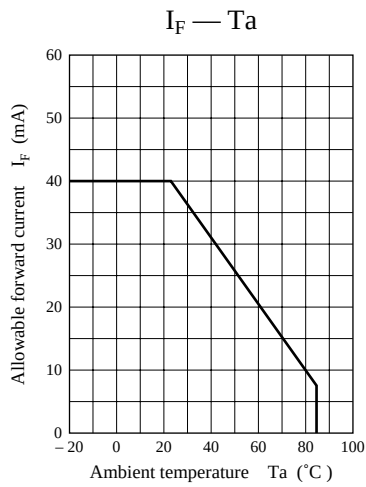


■ Electro-Optical Characteristics ($T_a = 25^\circ\text{C}$)

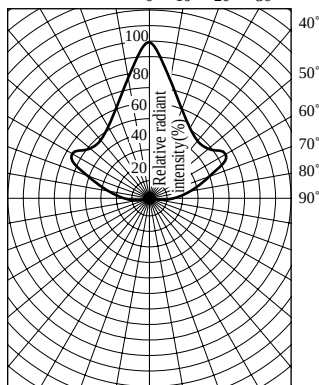
Parameter	Symbol	Conditions	min	typ	max	Unit
Radiant power	P_O	$I_F = 20\text{mA}$	1	3		mW
Peak emission wavelength	λ_p	$I_F = 20\text{mA}$		680		nm
Spectral half band width	$\Delta\lambda$	$I_F = 20\text{mA}$		20		nm
Forward voltage (DC)	V_F	$I_F = 20\text{mA}$		1.8	2.6	V
Reverse current (DC)	I_R	$V_R = 3\text{V}$			100	μA
Response time	t_r, t_f	$I_{FP} = 100\text{mA}$		30		ns
Half-power angle	θ	The angle in which radiant intensity is 50%		30		deg.

Note : Before using this product, be sure provide and/or receive approvals regarding individual specifications.

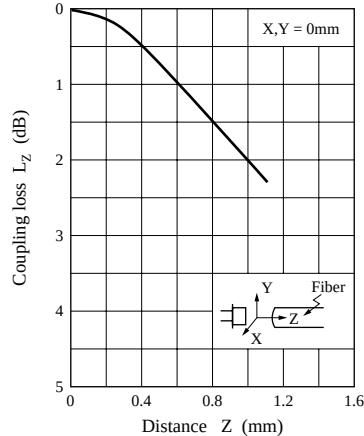
Note) The part number in the parenthesis shows conventional part number.



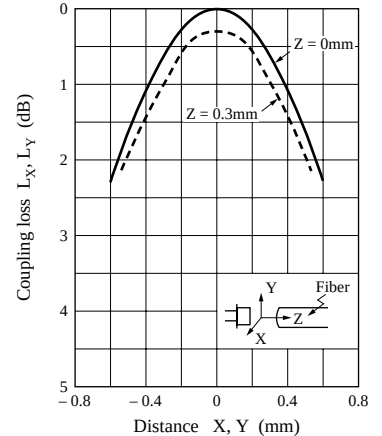
Directivity characteristics



Coupling loss characteristics



Coupling loss characteristics



Caution for Safety

 **DANGER**

Gallium arsenide material (GaAs) is used in this product.

Therefore, do not burn, destroy, cut, crush, or chemically decompose the product, since gallium arsenide material in powder or vapor form is harmful to human health.

Observe the relevant laws and regulations when disposing of the products. Do not mix them with ordinary industrial waste or household refuse when disposing of GaAs-containing products.

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