

LNA4501F

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 ($T_a = 25^\circ\text{C}$)

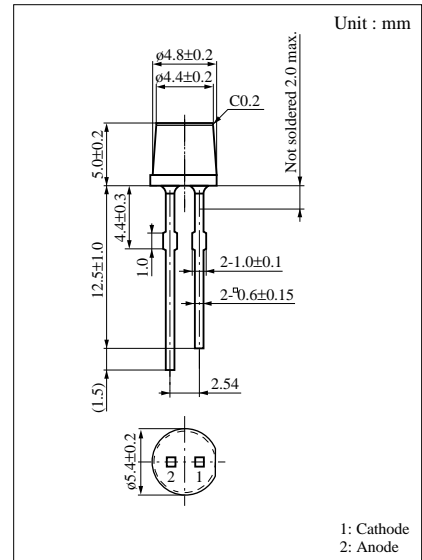
Parameter	Symbol	Ratings	Unit
Power dissipation	P_D	120	mW
Forward current (DC)	I_F	40	mA
Pulse forward current	I_{FP}^*	200	mA
Reverse voltage (DC)	V_R	3	V
Operating ambient temperature	T_{opr}	-25 to $+85$	$^\circ\text{C}$
Storage temperature	T_{stg}	-30 to $+100$	$^\circ\text{C}$

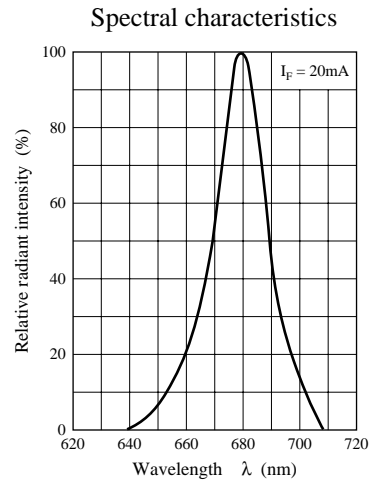
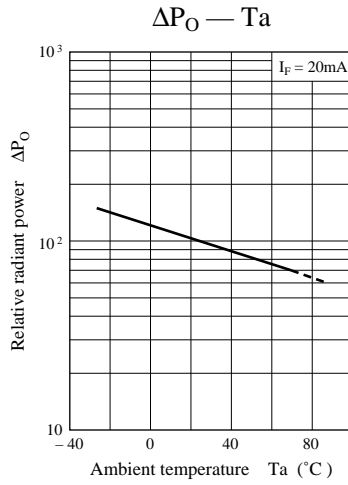
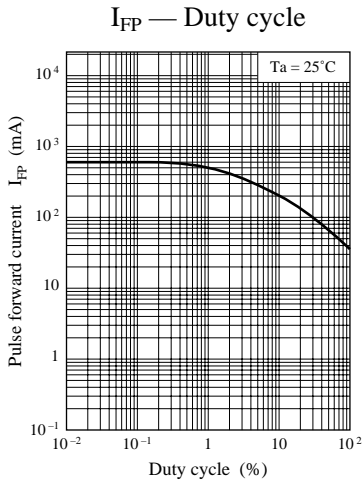
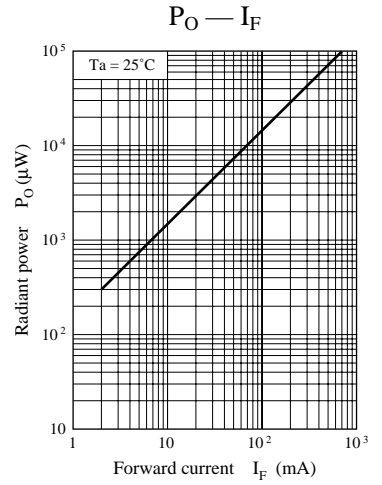
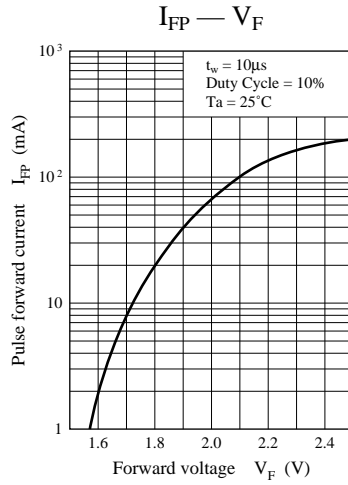
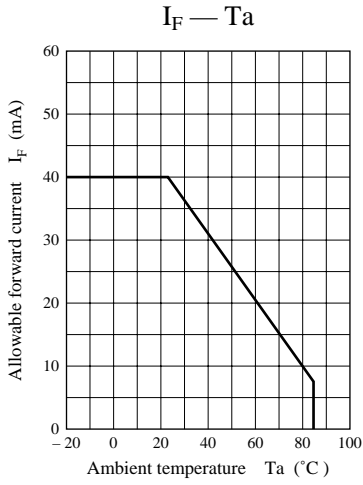
* $t_w = 10 \mu\text{s}$, Duty cycle = 10 %

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

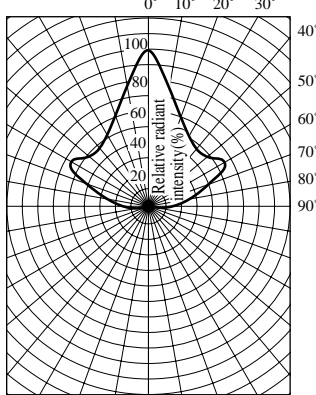
Parameter	Symbol	Conditions	min	typ	max	Unit
Radiant power	P_O	$I_F = 20\text{mA}$	1	3		mW
Peak emission wavelength	λ_p	$I_F = 20\text{mA}$		680		nm
Spectral half band width	$\Delta\lambda$	$I_F = 20\text{mA}$		20		nm
Forward voltage (DC)	V_F	$I_F = 20\text{mA}$		1.8	2.6	V
Reverse current (DC)	I_R	$V_R = 3\text{V}$			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.

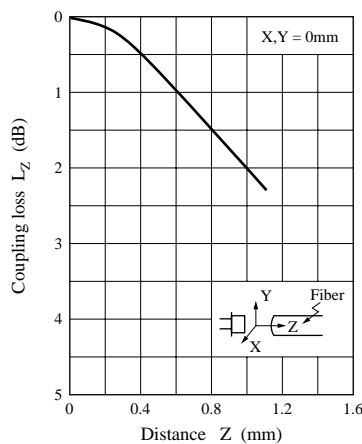




Directivity characteristics



Coupling loss characteristics



Coupling loss characteristics

