

LNA2403F, LNA2402L (LN151F, LN151L)

GaAs Infrared Light Emitting Diodes

For optical control systems

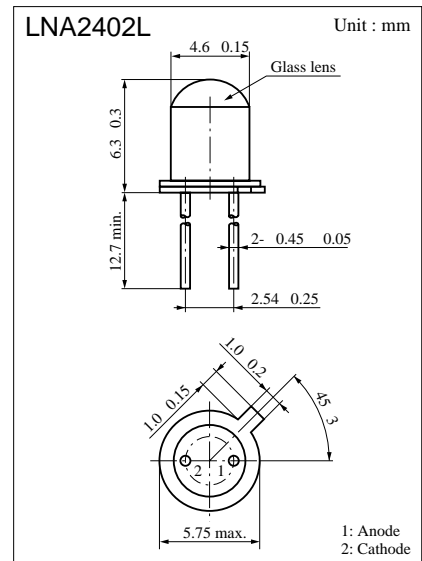
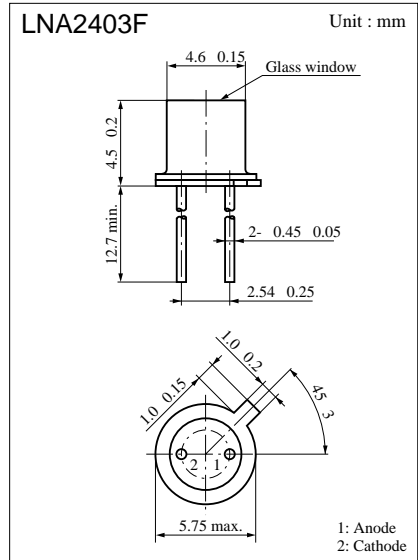
■ Features

- High-power output, high-efficiency : $P_O = 7.5$ mW (typ.)
- Fast response and high-speed modulation capability :
 $t_r, t_f = 1$ μ s (typ.)
- Infrared light emission close to monochromatic light :
 $\lambda_p = 950$ nm (typ.)
- Narrow directivity, suitable for effective use of radiant power
(LNA2402L (LN151L))
- Wide directivity, matched for external optical systems
(LNA2403F (LN151F))
- TO-18 standard type package

■ Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Ratings	Unit
Power dissipation	P_D	160	mW
Forward current (DC)	I_F	100	mA
Pulse forward current	I_{FP}^*	2	A
Reverse voltage (DC)	V_R	3	V
Operating ambient temperature	T_{opr}	-25 to +100	°C
Storage temperature	T_{stg}	-30 to +100	°C

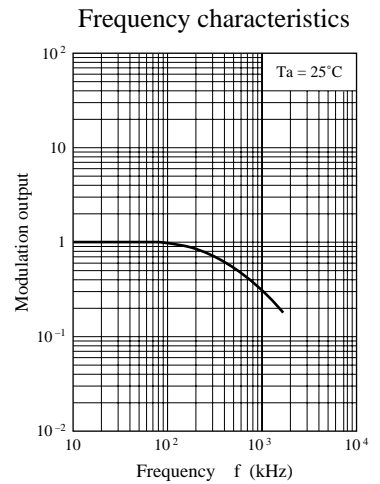
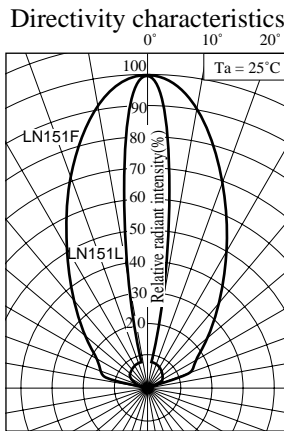
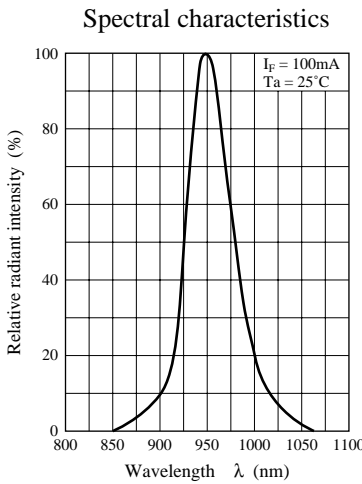
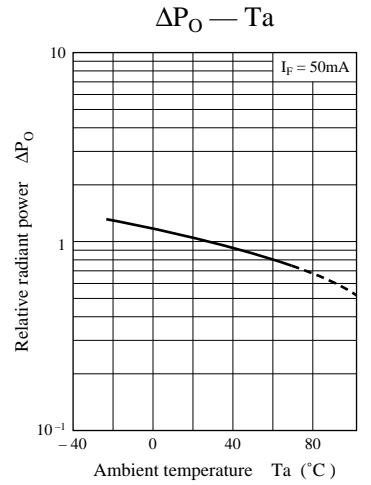
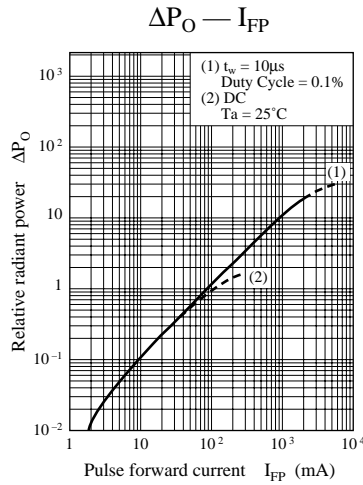
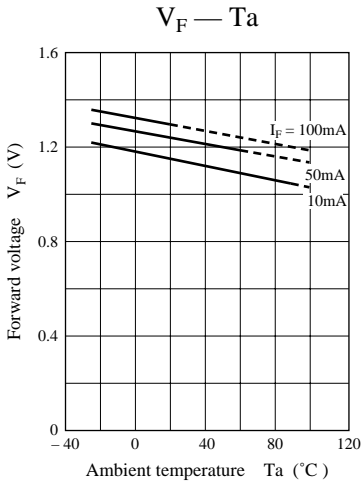
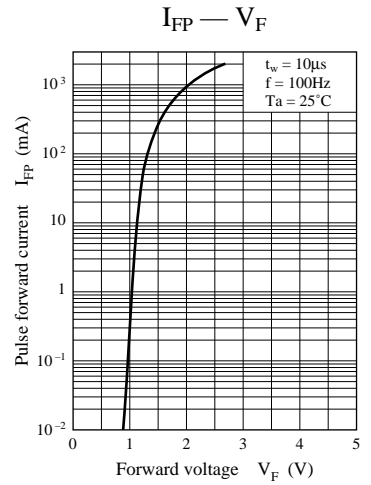
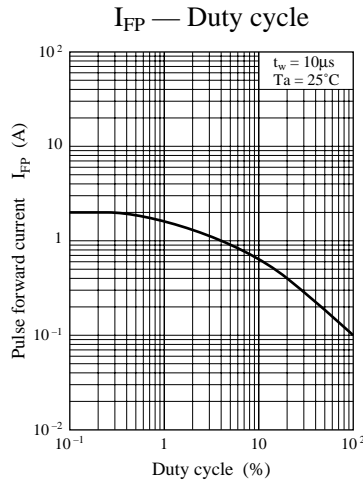
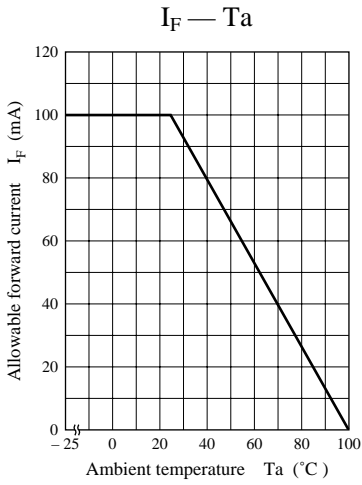
* f = 100 Hz, Duty cycle = 0.1 %



■ Electro-Optical Characteristics (Ta = 25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Radiant power	P_O	$I_F = 100$ mA	5	7.5		mW
Peak emission wavelength	λ_p	$I_F = 100$ mA		950		nm
Spectral half band width	$\Delta\lambda$	$I_F = 100$ mA		50		nm
Forward voltage (DC)	V_F	$I_F = 100$ mA		1.3	1.6	V
Reverse current (DC)	I_R	$V_R = 3$ V			10	μ A
Capacitance between pins	C_t	$V_R = 0$ V, f = 1 MHz		60		pF
Rise time	t_r	$I_{FP} = 100$ mA		1		μ s
Fall time	t_f			1		μ s
Half-power angle	LNA2403F	θ	The angle in which radiant intensity is 50%	32		deg.
	LNA2402L			8		deg.

Note) The part numbers in the parenthesis show conventional part number.



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

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