

LN59, LNA2702L (LN59L)

GaAs Bi-directional Infrared Light Emitting Diodes

For light source of VCR (VHS System)

Features

- Two-way directivity
- High-power output, high-efficiency : $P_O = 1.8 \text{ mW}$ (min.)
- Small resin package
- Long lifetime, high reliability
- Long lead wire type (LNA2702L)

Applications

- Light source for tape end sensor of VCR and video camera recorder of VHS system
- Light source for 2-bit photo sensor

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

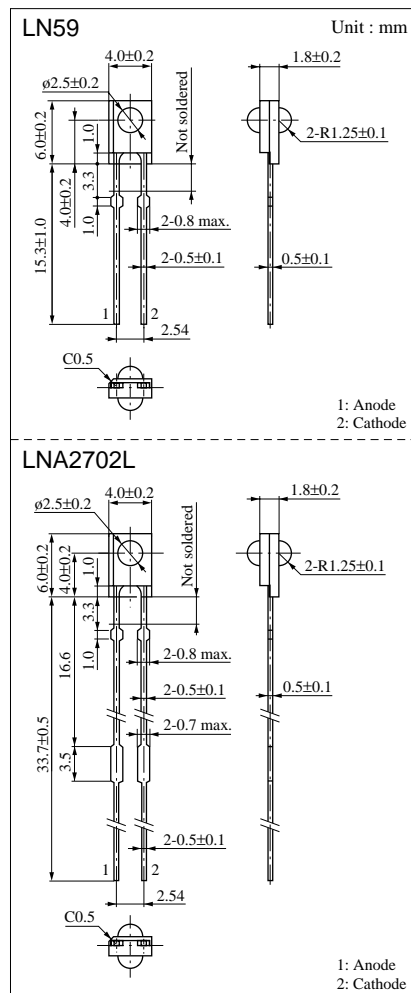
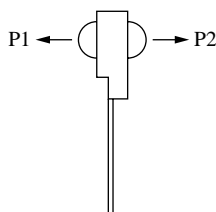
Parameter	Symbol	Ratings	Unit
Power dissipation	P_D	75	mW
Forward current (DC)	I_F	50	mA
Pulse forward current	I_{FP}^*	1	A
Reverse voltage (DC)	V_R	3	V
Operating ambient temperature	T_{opr}	-25 to $+85$	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to $+100$	$^\circ\text{C}$

* $f = 100 \text{ Hz}$, Duty cycle = 0.1 %

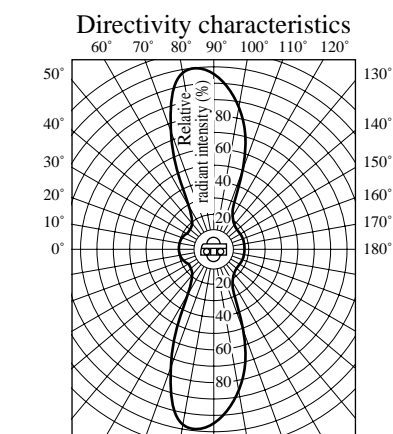
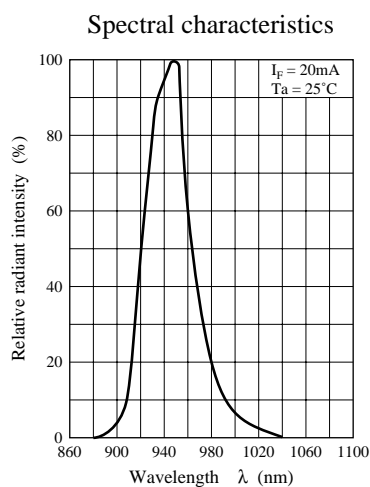
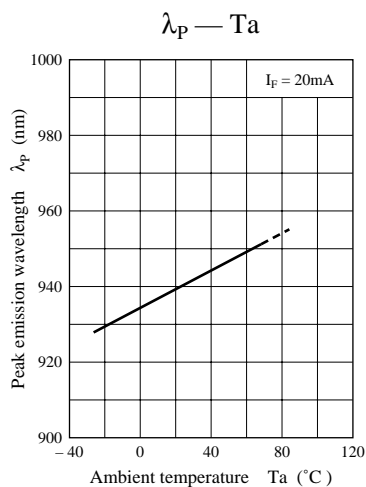
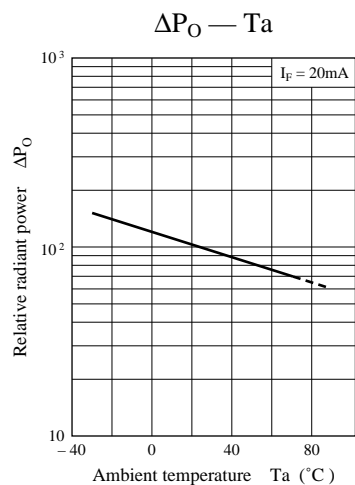
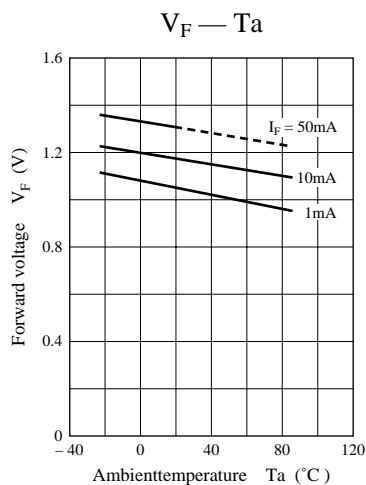
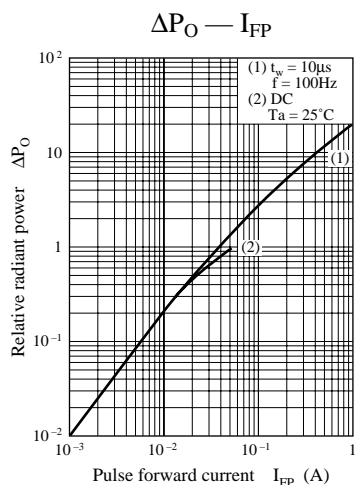
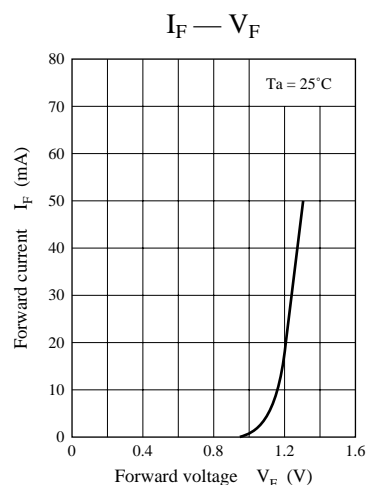
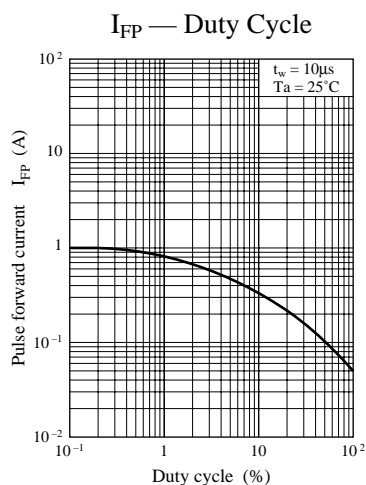
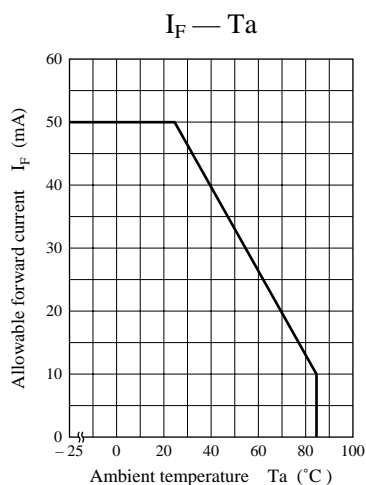
Electro-Optical Characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Conditions	min	typ	max	Unit
Radiant power	P_O^*	$I_F = 50 \text{ mA}$	1.8			mW
Peak emission wavelength	λ_P	$I_F = 20 \text{ mA}$		950		nm
Spectral half band width	$\Delta\lambda$	$I_F = 20 \text{ mA}$		50		nm
Forward voltage (DC)	V_F	$I_F = 50 \text{ mA}$		1.3	1.5	V
Reverse current (DC)	I_R	$V_R = 3 \text{ V}$			10	μA
Capacitance between pins	C_t	$V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$		35		pF

* Radiant power P_O shows each value of radiant flux P_1 and P_2 in two directions.



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



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.

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