

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

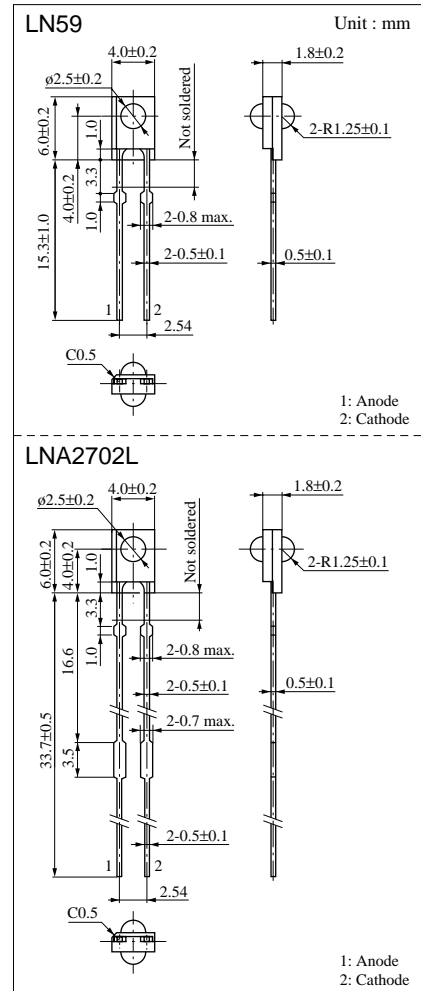
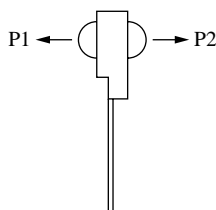
Parameter	Symbol	Ratings	Unit
Power dissipation	$P_D$	75	mW
Forward current (DC)	$I_F$	50	mA
Pulse forward current	$I_{FP}^*$	1	A
Reverse voltage (DC)	$V_R$	3	V
Operating ambient temperature	$T_{opr}$	-25 to +85	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40 to +100	$^\circ\text{C}$

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

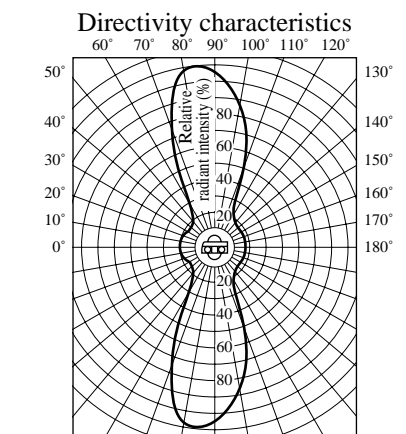
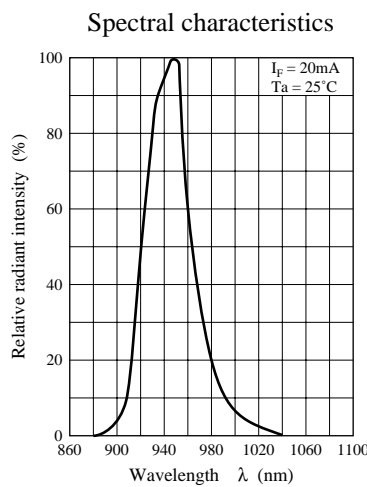
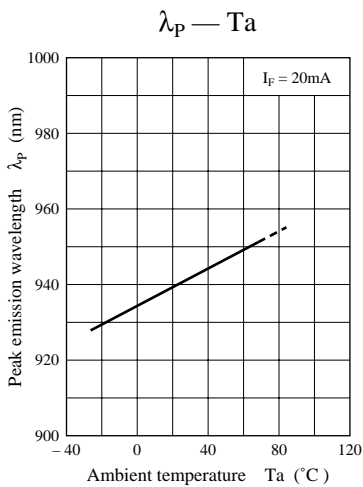
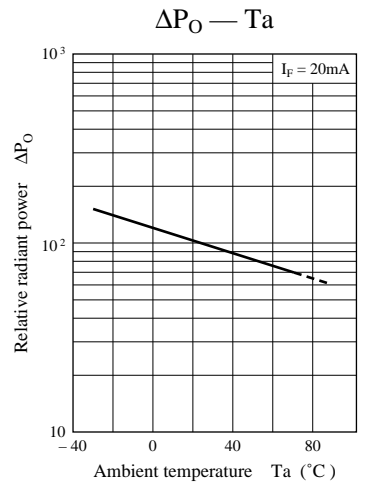
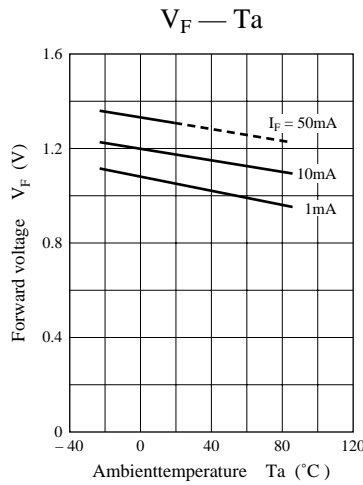
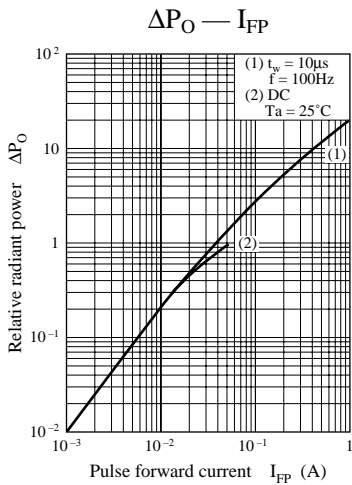
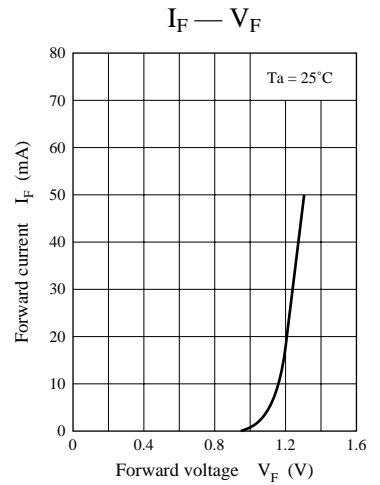
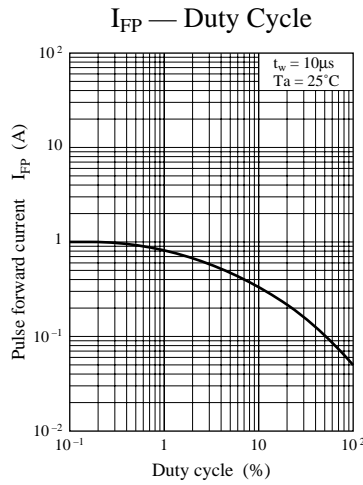
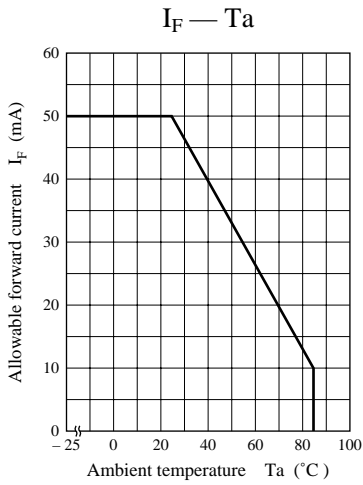
### Electro-Optical Characteristics ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Conditions	min	typ	max	Unit
Radiant power	$P_O^*$	$I_F = 50\text{mA}$	1.8			mW
Peak emission wavelength	$\lambda_p$	$I_F = 20\text{mA}$		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	$\mu\text{A}$
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 P1 and P2 in two directions.



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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