

# LNA2903L (LN66A)

## GaAs Infrared Light Emitting Diode

For optical control systems

### ■ Features

- High-power output, high-efficiency :  $I_e = 9 \text{ mW/sr}$  (min.)
- Emitted light spectrum suited for silicon photodetectors
- Good radiant power output linearity with respect to input current
- Wide directivity :  $\theta = 20 \text{ deg.}$  (typ.)
- Transparent epoxy resin package

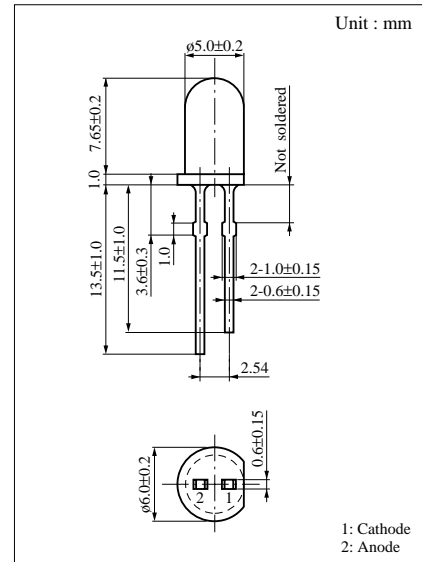
### ■ Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Rated	Unit
Power dissipation	$P_D$	160	mW
Forward current (DC)	$I_F$	100	mA
Pulse forward current	$I_{FP}^*$	1.5	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	$^\circ\text{C}$

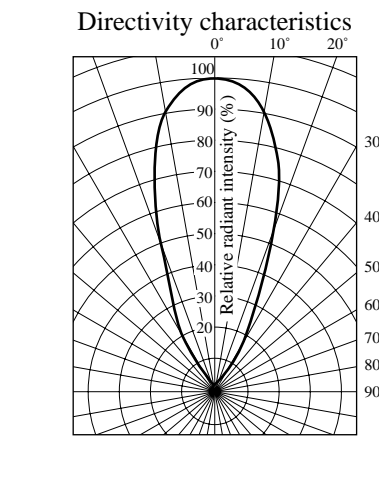
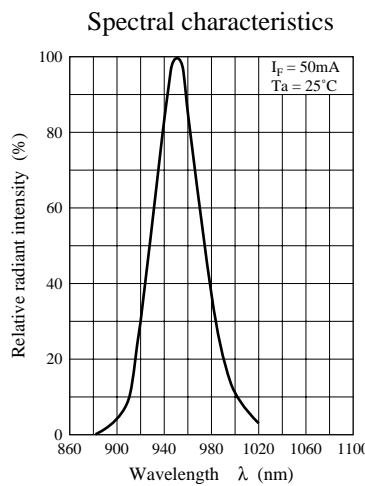
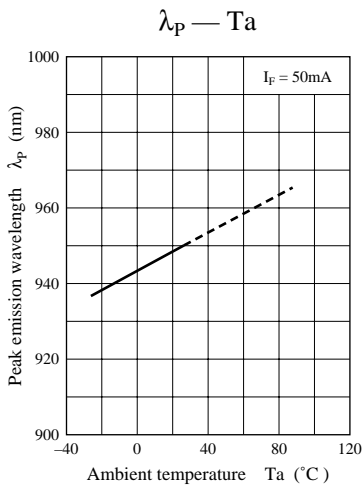
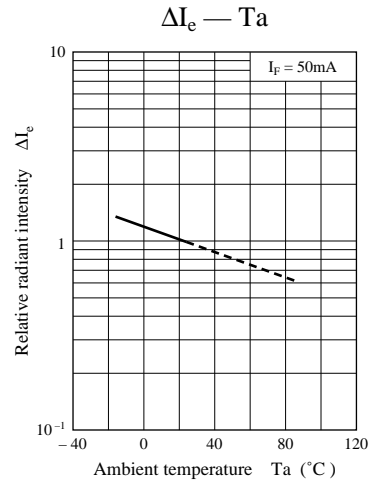
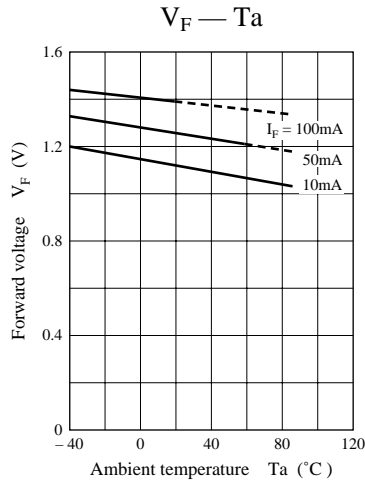
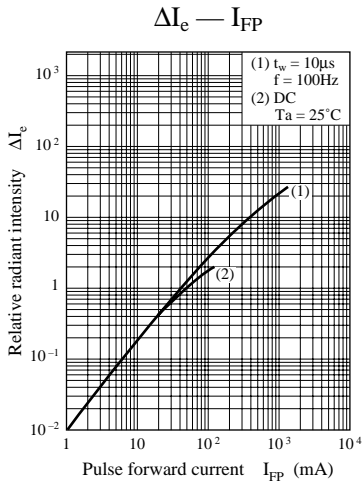
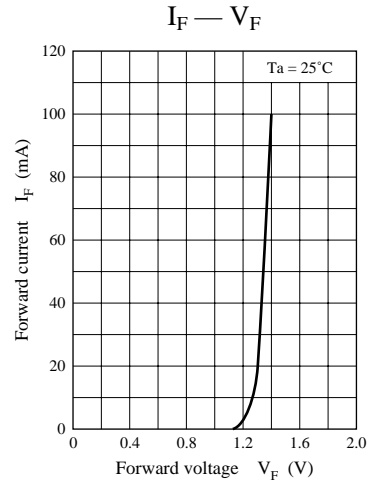
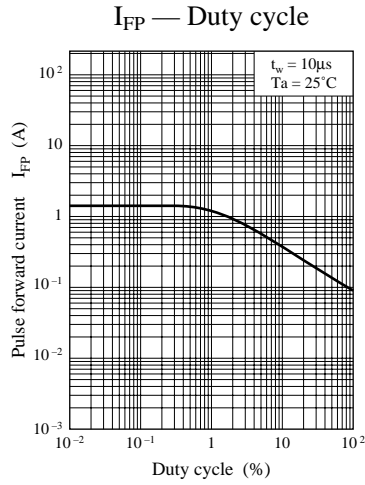
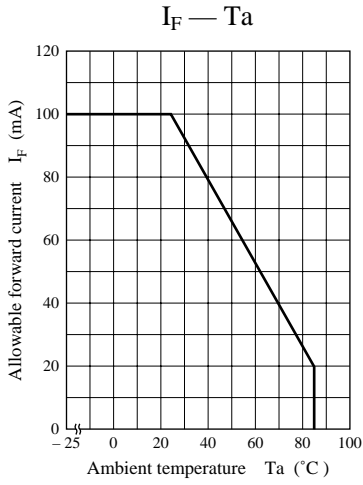
\*  $f = 100 \text{ Hz}$ , Duty cycle = 0.1 %

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

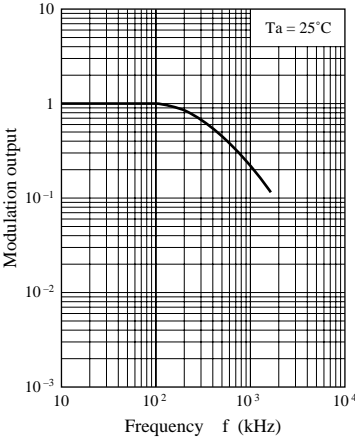
Parameter	Symbol	Conditions	min	typ	max	Unit
Radiant intensity at center	$I_e$	$I_F = 50\text{mA}$	9			mW/sr
Peak emission wavelength	$\lambda_p$	$I_F = 50\text{mA}$		950		nm
Spectral half band width	$\Delta\lambda$	$I_F = 50\text{mA}$		50		nm
Forward voltage (DC)	$V_F$	$I_F = 100\text{mA}$		1.4	1.6	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
Half-power angle	$\theta$	The angle in which radiant intensity is 50%		25		deg.



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



Frequency 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.

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