

LNA2903L

GaAs Infrared Light Emitting Diode

For optical control systems

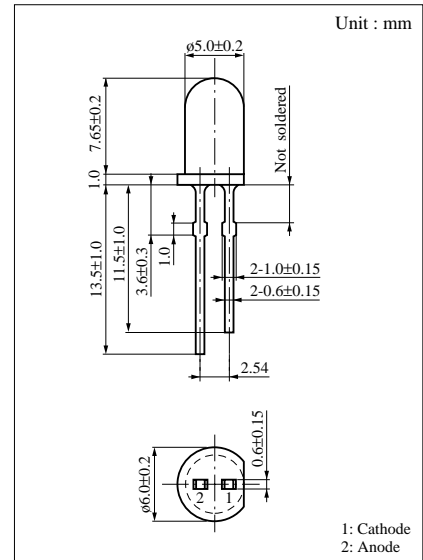
■ Features

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

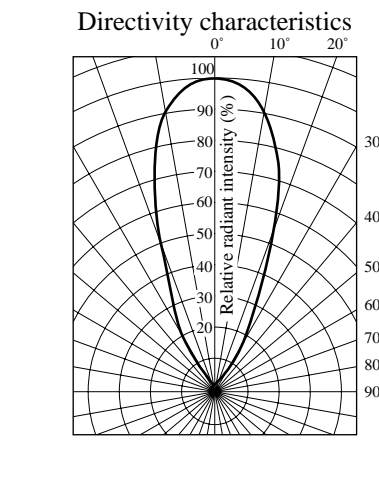
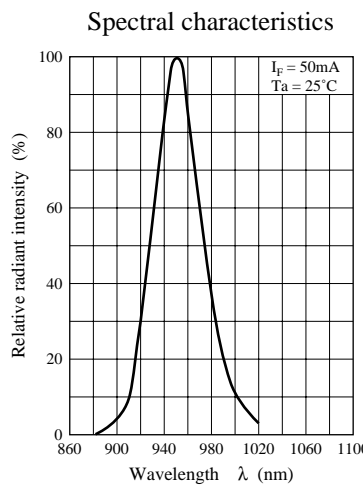
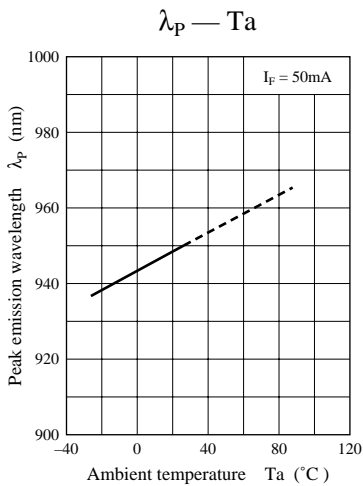
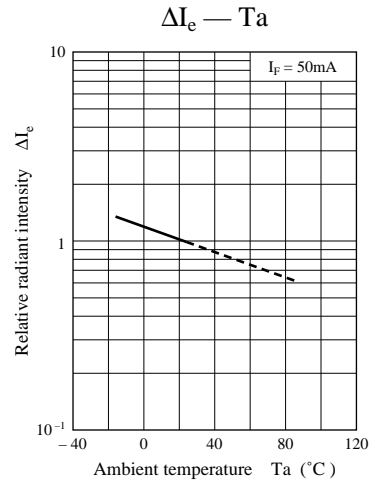
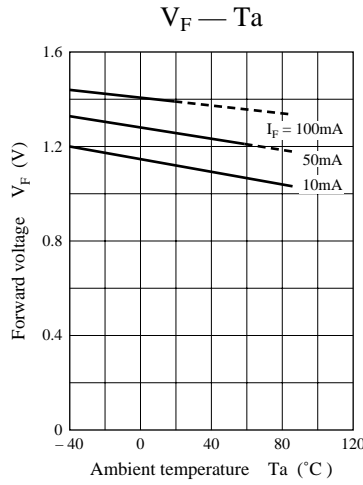
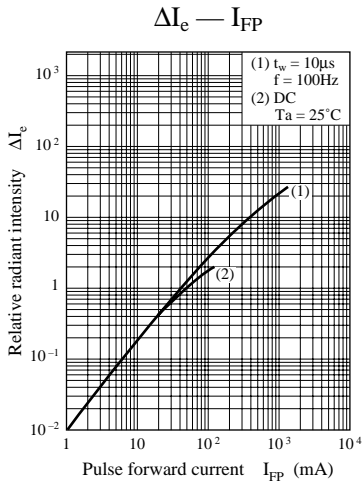
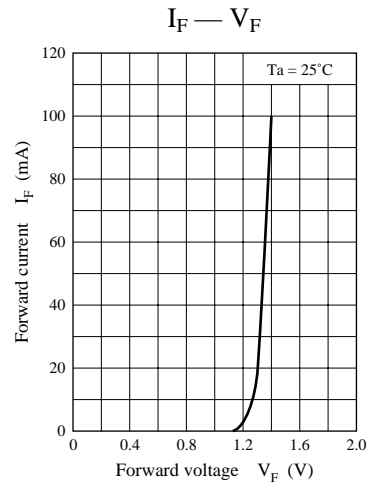
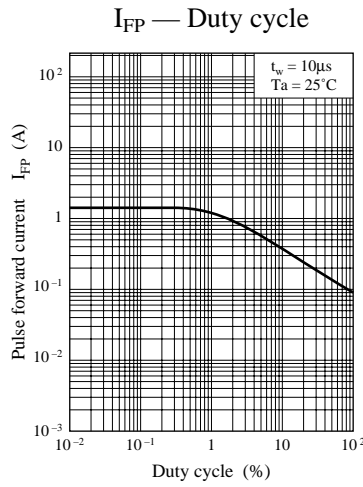
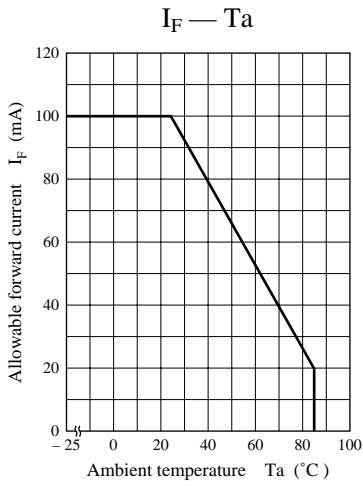
Parameter	Symbol	Rated	Unit
Power dissipation	P_D	160	mW
Forward current (DC)	I_F	100	mA
Pulse forward current	I_{FP}^*	1.5	A
Reverse voltage (DC)	V_R	3	V
Operating ambient temperature	T_{opr}	-25 to +85	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +100	$^\circ\text{C}$

* $f = 100 \text{ Hz}$, 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	λ_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	μA
Capacitance between pins	C_t	$V_R = 0\text{V}$, $f = 1\text{MHz}$		35		pF
Half-power angle	θ	The angle in which radiant intensity is 50%		25		deg.



Frequency characteristics

