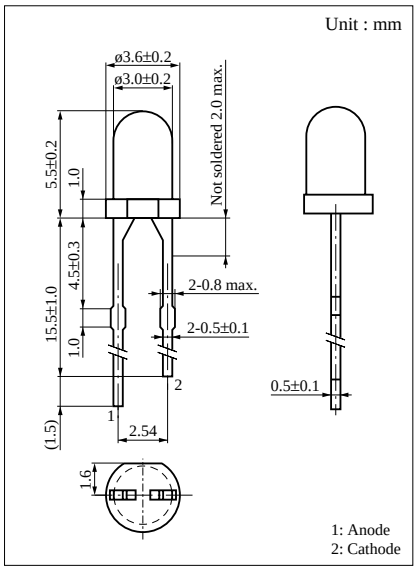
LNA2801L

GaAlAs on GaAs Infrared Light Emitting Diode

For optical control systems



Features

- High-power output, high-efficiency : I_e = 6 mW/sr (min.)
- Emitted light spectrum suited for silicon photodetectors
- Good radiant power output linearity with respect to input current
- ø3 plastic package

Absolute Maximum Ratings (Ta = 25˚C)

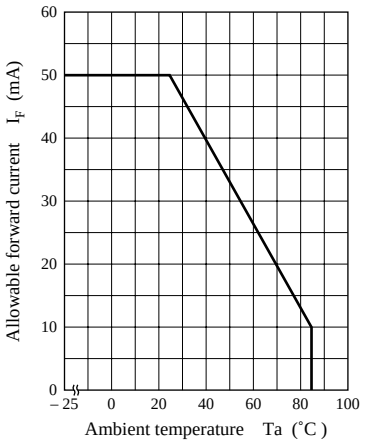
Parameter	Symbol	Ratings	Unit
Power dissipation	P_D	75	mW
Forward current (DC)	I_F	50	mA
Pulse forward current	I_{FP}*	1	A
Reverse voltage (DC)	V_R	3	V
Operating ambient temperature	T_{opr}	–25 to +85	˚C
Storage temperature	T_{stg}	– 40 to +100	˚C

* f = 100 Hz, Duty cycle = 0.1 %

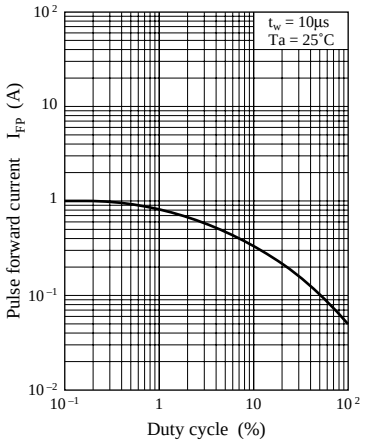
Electro-Optical Characteristics (Ta = 25˚C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Center radiant intensity	I_e	I_F = 20mA	6			mW/sr
Peak emission wavelength	λ_P	I_F = 50mA		940		nm
Spectral half band width	$\Delta\lambda$	I_F = 50mA		50		nm
Forward voltage (DC)	V_F	I_F = 50mA		1.3	1.5	V
Reverse current (DC)	I_R	V_R = 3V			10	µA
Capacitance between pins	C_t	V_R = 0V, f = 1MHz		35		pF
Half-power angle	θ	The angle in which radiant intencity is 50%		15		deg.

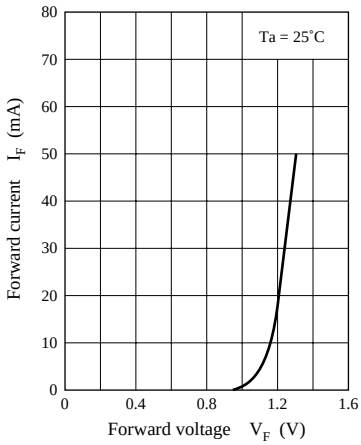
I_F — Ta



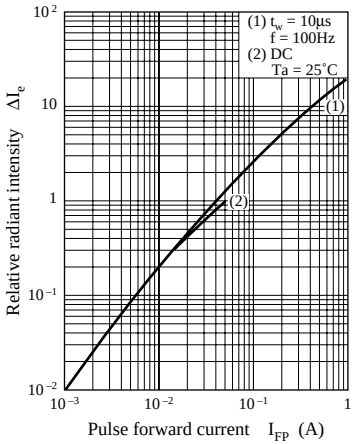
I_{FP} — Duty cycle



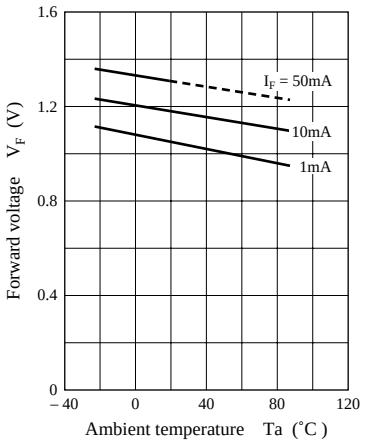
I_F — V_F



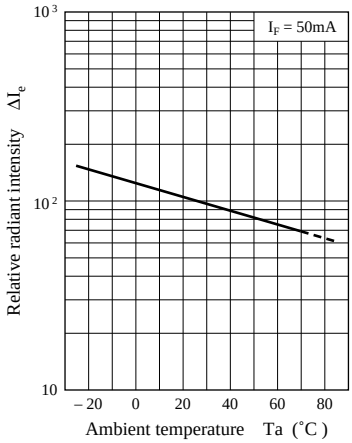
ΔI_e — I_{FP}



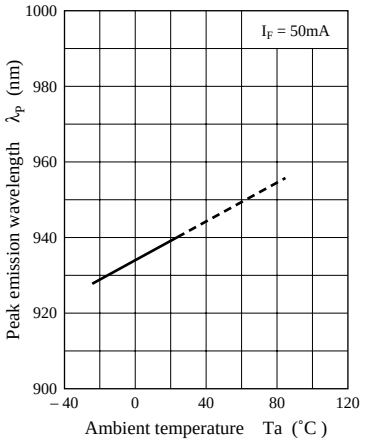
V_F — Ta



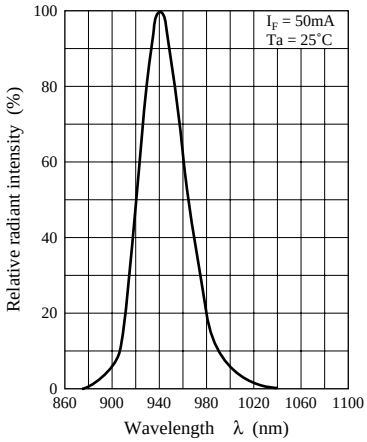
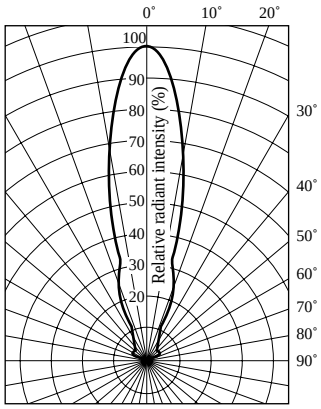
ΔI_e — Ta



λ_P — Ta



Spectral characteristics



Directional characteristics