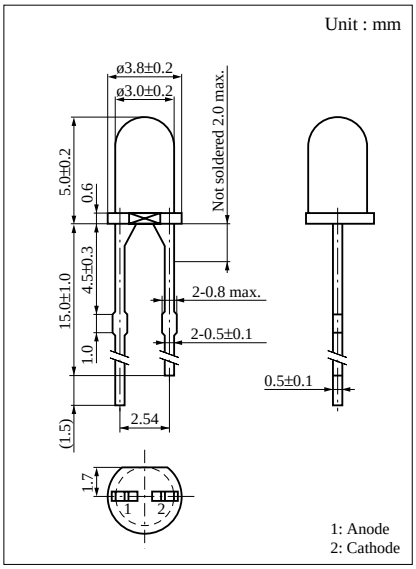
LNA2802L (LN68)

GaAs Infrared Light Emitting Diode

For optical control systems



Features

- High-power output, high-efficiency : P_O = 5 mW (typ.)
- Emitted light spectrum suited for silicon photodetectors : λ_P = 940 nm (typ.)
- Good radiant power output linearity with respect to input current
- Long lifetime, high reliability
- 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

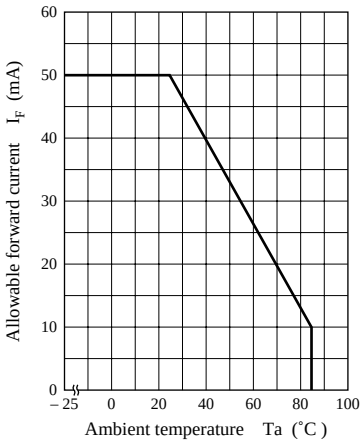
* f = 100 Hz, Duty cycle = 0.1 %

Electro-Optical Characteristics (Ta = 25˚C)

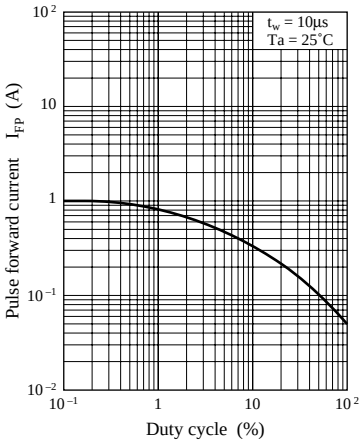
Parameter	Symbol	Conditions	min	typ	max	Unit
Radiant power	P_O	I_F = 50mA	2.5	5		mW
Peak emission wavelength	λ_P	I_F = 50mA		940		nm
Spectral half band width	$\Delta\lambda$	I_F = 50mA		50		nm
Forward voltage (DC)	V_F	I_F = 50mA		1.3	1.5	V
Reverse current (DC)	I_R	V_R = 3V			10	µA
Capacitance between terminals	C_t	V_R = 0V, f = 1MHz		35		pF
Half-power angle	θ	The angle in which radiant intencity is 50%		20		deg.

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

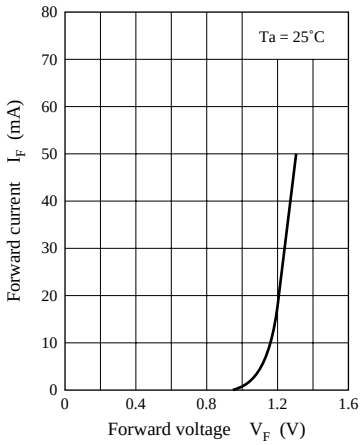
I_F — Ta



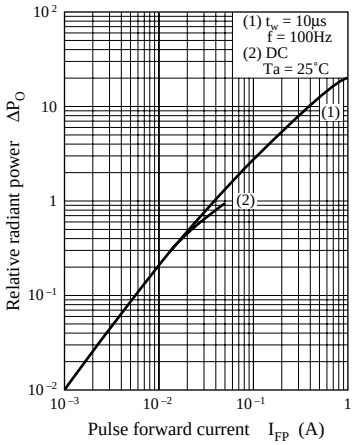
I_{FP} — Duty cycle



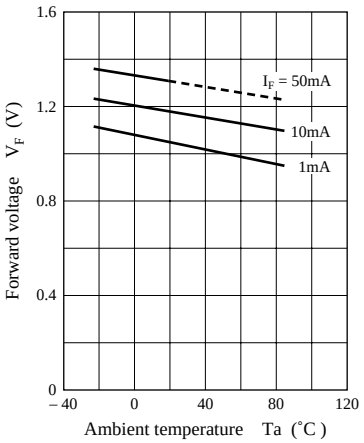
I_F — V_F



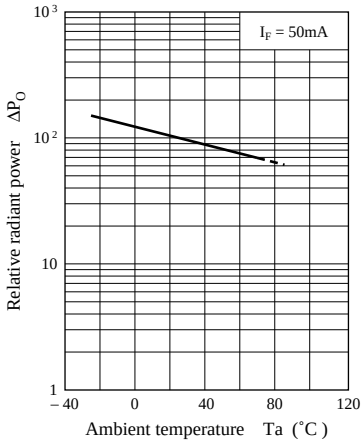
ΔP_O — I_{FP}



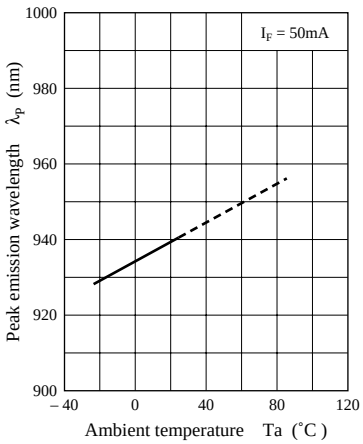
V_F — Ta



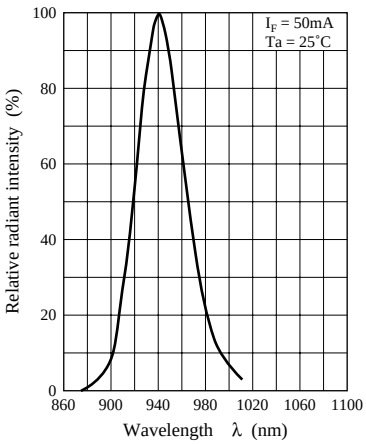
ΔP_O — Ta



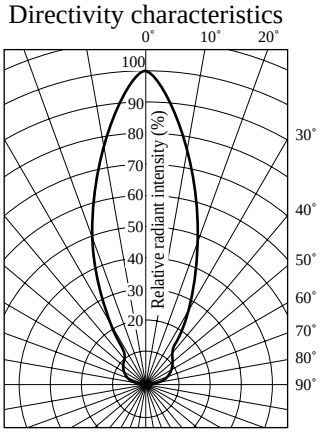
λ_P — Ta



Spectral characteristics



Directivity 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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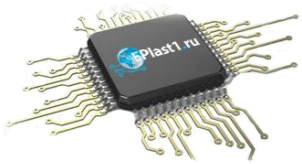
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- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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