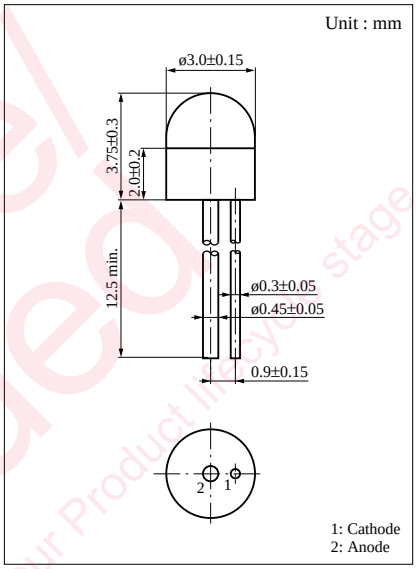
LN62S

GaAs Infrared Light Emitting Diode



For optical control systems

This product can be combined with various types of silicon photodetectors such as the PN120S to form optical controllers.

■ Features

- High-power output, high-efficiency : P_O = 3.5 mW (typ.)
- Infrared light emission close to monochromatic light : λ_P = 950 nm (typ.)
- Small ceramic package

■ Absolute Maximum Ratings (Ta = 25˚C)

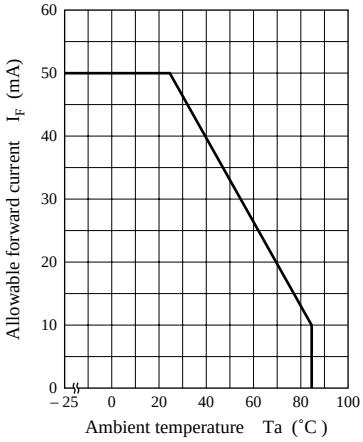
Parameter	Symbol	Ratings	Unit
Power dissipation	P_D	75	mW
Forward current (DC)	I_F	50	mA
Pulse forward current	I_{FP}*	1	A
Reverse voltage (DC)	V_R	3	V
Operating ambient temperature	T_{opr}	–25 to +85	˚C
Storage temperature	T_{stg}	–30 to +100	˚C

* f = 100 Hz, Duty cycle = 0.1 %

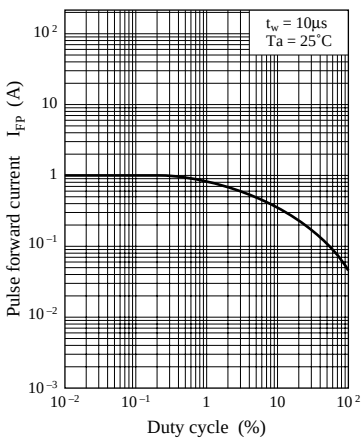
■ Electro-Optical Characteristics (Ta = 25˚C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Radiant power	P_O	I_F = 50mA	1.5	3.5		mW
Peak emission wavelength	λ_P	I_F = 50mA		950		nm
Spectral half band width	$\Delta\lambda$	I_F = 50mA		50		nm
Forward voltage (DC)	V_F	I_F = 50mA		1.2	1.5	V
Reverse current (DC)	I_R	V_R = 3V			10	μA
Capacitance between pins	C_t	V_R = 0V, f = 1MHz		50		pF
Half-power angle	θ	The angle in which radiant intencity is 50%		80		deg.

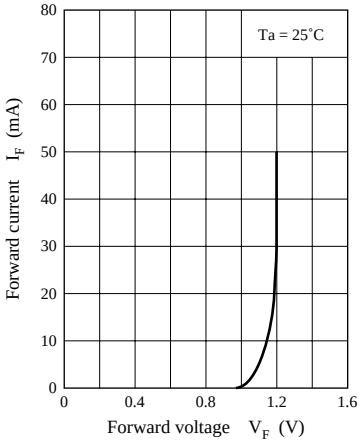
I_F — Ta



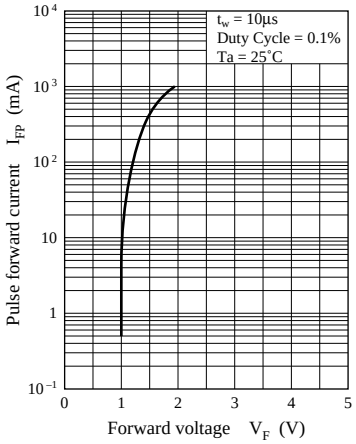
I_{FP} — Duty cycle



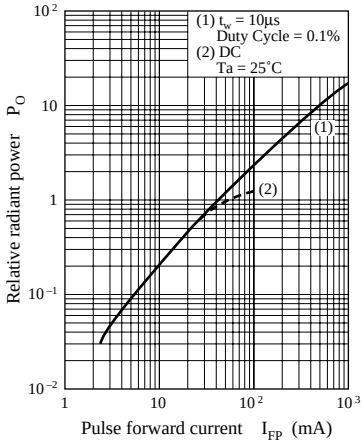
I_F — V_F



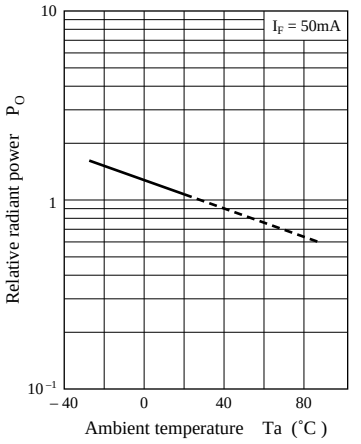
I_{FP} — V_F



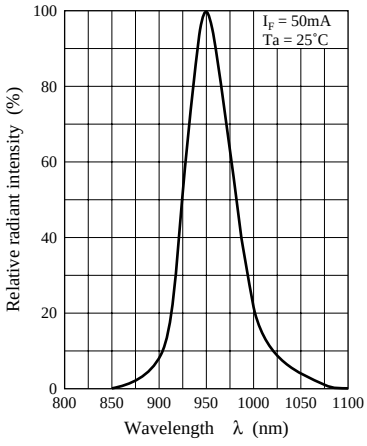
P_O — I_{FP}



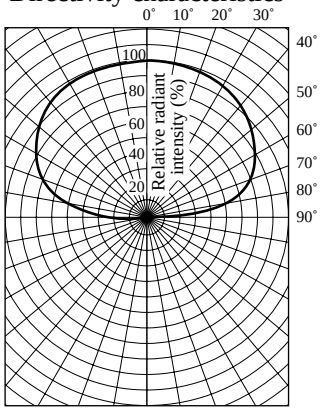
P_O — Ta



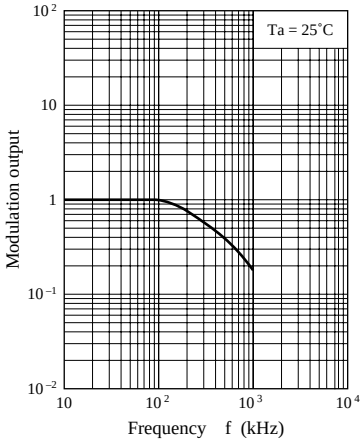
Spectral characteristics



Directivity characteristics



Frequency characteristics



⚠Caution for Safety

⚠DANGER

■ This product contains Gallium Arsenide (GaAs).

GaAs powder and vapor are hazardous to human health if inhaled or ingested. Do not burn, destroy, cut, cleave off, or chemically dissolve the product. Follow related laws and ordinances for disposal. The product should be excluded from general industrial waste or household garbage.

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