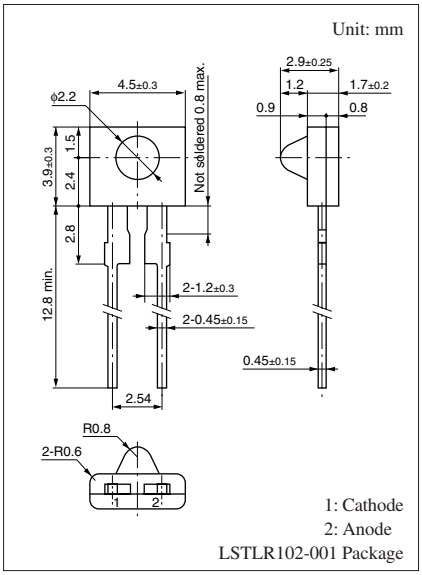
LNA2605L

GaAs Infrared Light Emitting Diode

For optical control systems



■ Features

- High-power output, high-efficiency: P_O = 1.5 mW (min.)
- Emitted light spectrum suited for silicon photodetectors
- Small size, thin side-view type package

■ Absolute Maximum Ratings T_a = 25°C

Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	3	V
Forward current	I_F	30	mA
Pulse forward current *	I_{FP}	0.7	A
Power dissipation	P_D	45	mW
Operating ambient temperature	T_{opr}	−25 to +85	°C
Storage temperature	T_{stg}	−30 to +100	°C

Note) ∗: f = 100 Hz, Duty Cycle = 0.1%

■ Electrical-Optical Characteristics T_a = 25°C ± 3°C

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	I_F = 30 mA			1.5	V
Reverse current	I_R	V_R = 3 V			10	μA
Radiant power *	P_O	I_F = 20 mA	1.5			mW
Peak emission wavelength	λ_P	I_F = 30 mA		940		nm
Spectral half band width	$\Delta\lambda$	I_F = 30 mA		50		nm
Half-power angle	θ	The angle when the radiant power is halved		15		°

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

2. Cutoff frequency: 1 MHz

$$f_C: 10 \times \log \frac{P_O \text{ at } f = f_C}{P_O \text{ at } f = 50 \text{ kHz}} = -3$$

3. ∗: A light detection element uses a silicon diode have proofread a load with a standard device.

⚠ 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 form general industrial waste or household garbage.

Request for your special attention and precautions in using the technical information and semiconductors described in this material

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Even when the products are used within the guaranteed values, take into the consideration of incidence of break down and failure mode, possible to occur to semiconductor products. Measures on the systems such as redundant design, arresting the spread of fire or preventing glitch are recommended in order to prevent physical injury, fire, social damages, for example, by using the products.

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